Drug & Cosmetic INDUSTRY

August 1947

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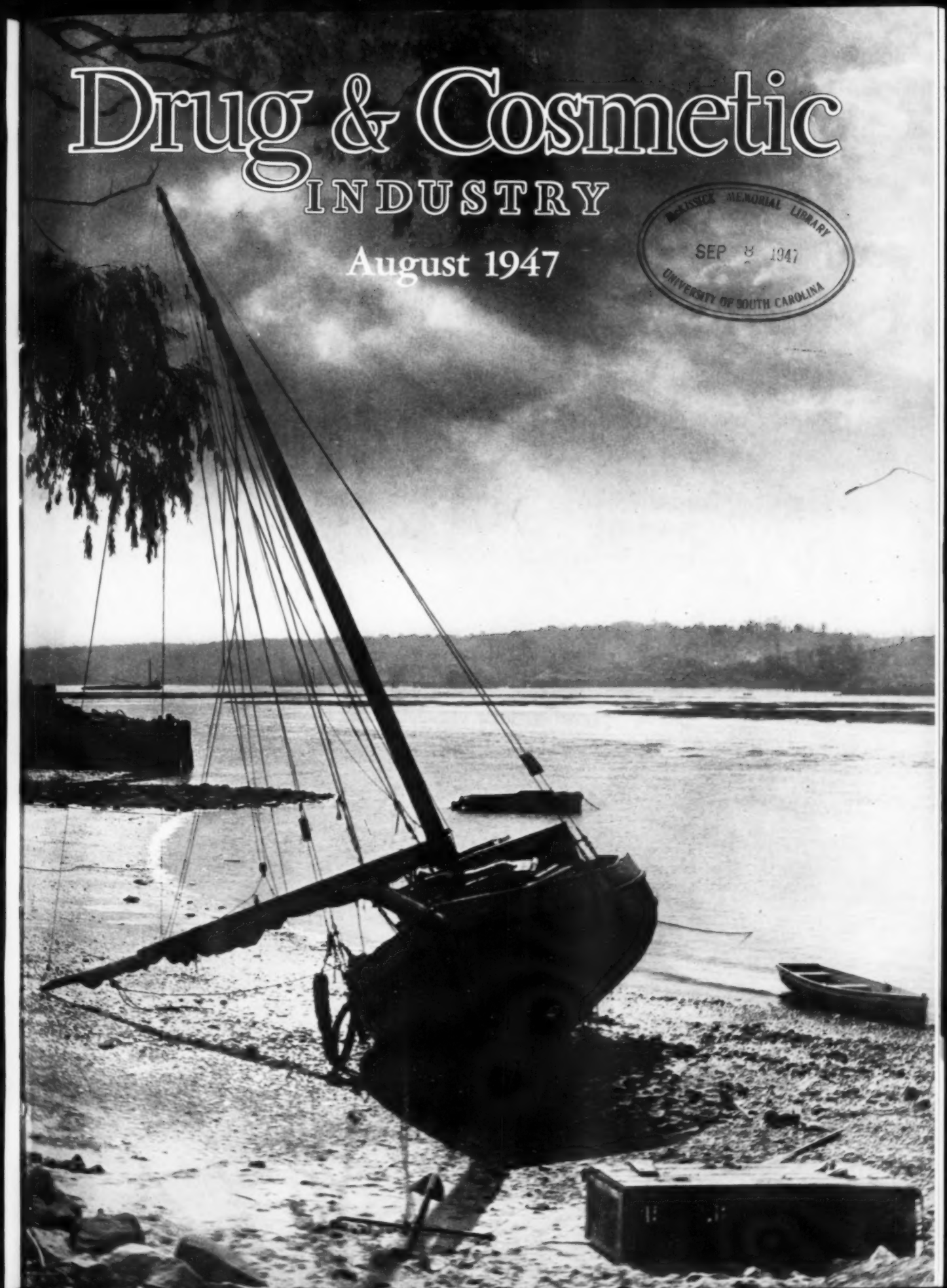

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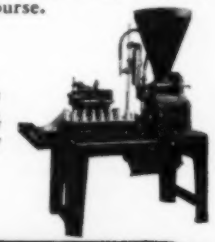

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Drug & Cosmetic INDUSTRY

AUGUST 1947

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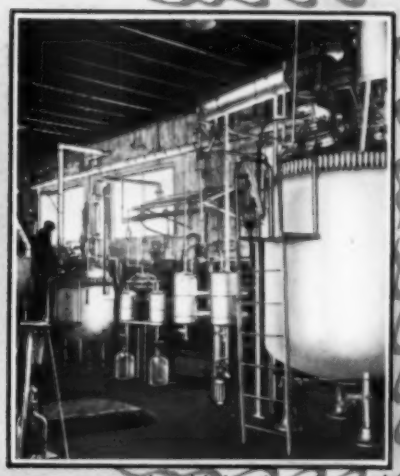

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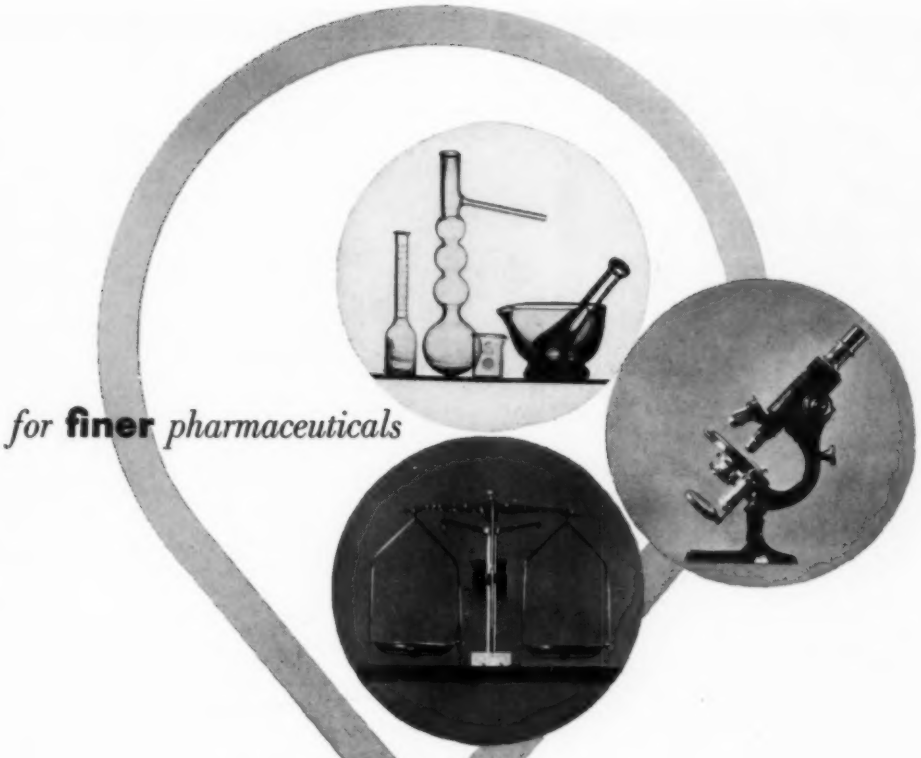

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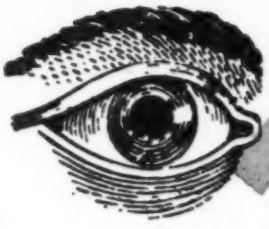

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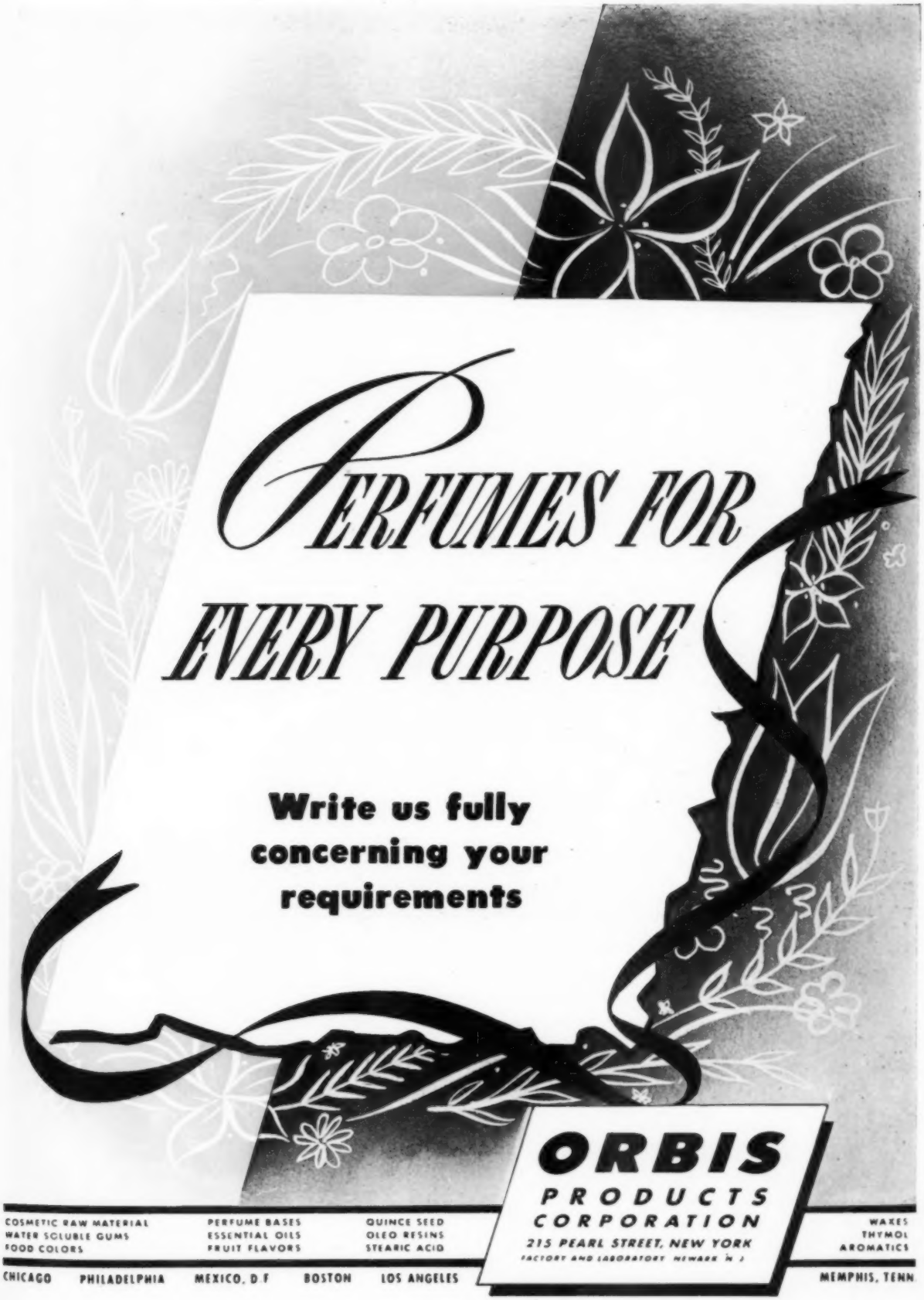

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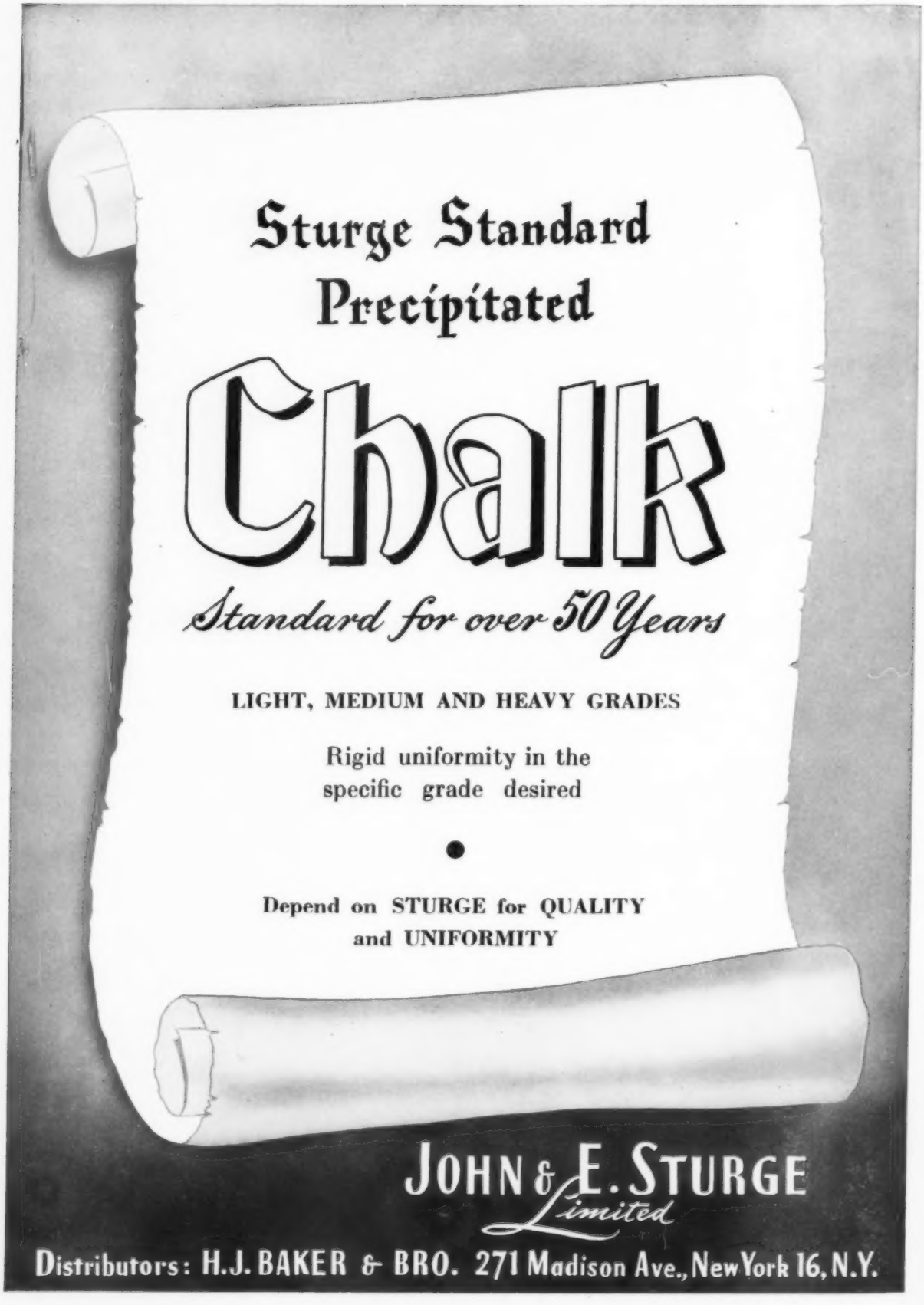
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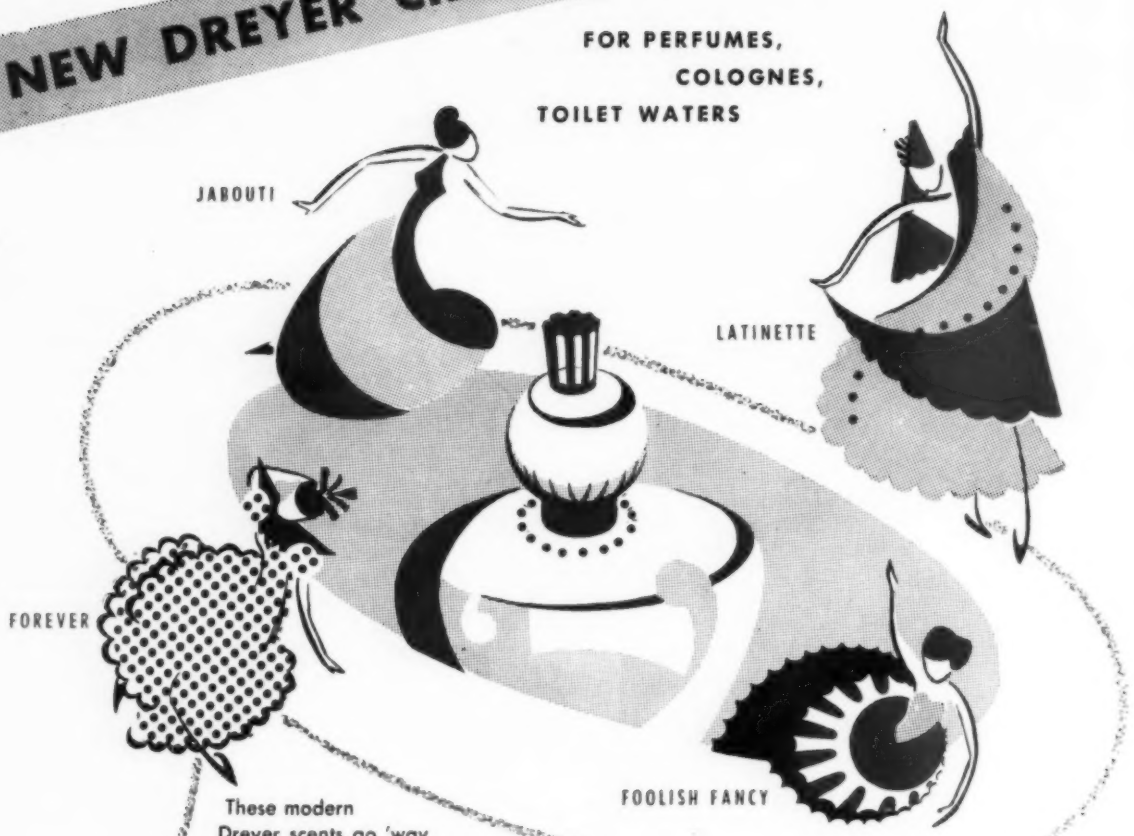

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Additional physical and chemical data on this important chemical are contained in Technical Data Sheet 714, sent when requested on your letterhead. Hooker's Technical Staff is also available for consultation and help on the application of Aluminum Chloride and the other Hooker chemicals to your purposes.

SPECIFICATIONS

Hooker Aluminum Chloride, Anhydrous $AlCl_3$

Gray, crystalline solid in three sizes.

Molecular Weight 133.3

ANALYSIS

Aluminum Chloride	98.5 % min.
Iron	0.05% max.
Non-sublimables in air at 950° C.	1.5 % max.

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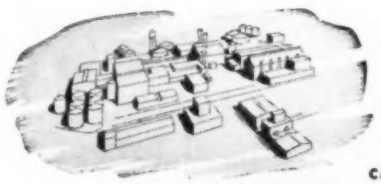

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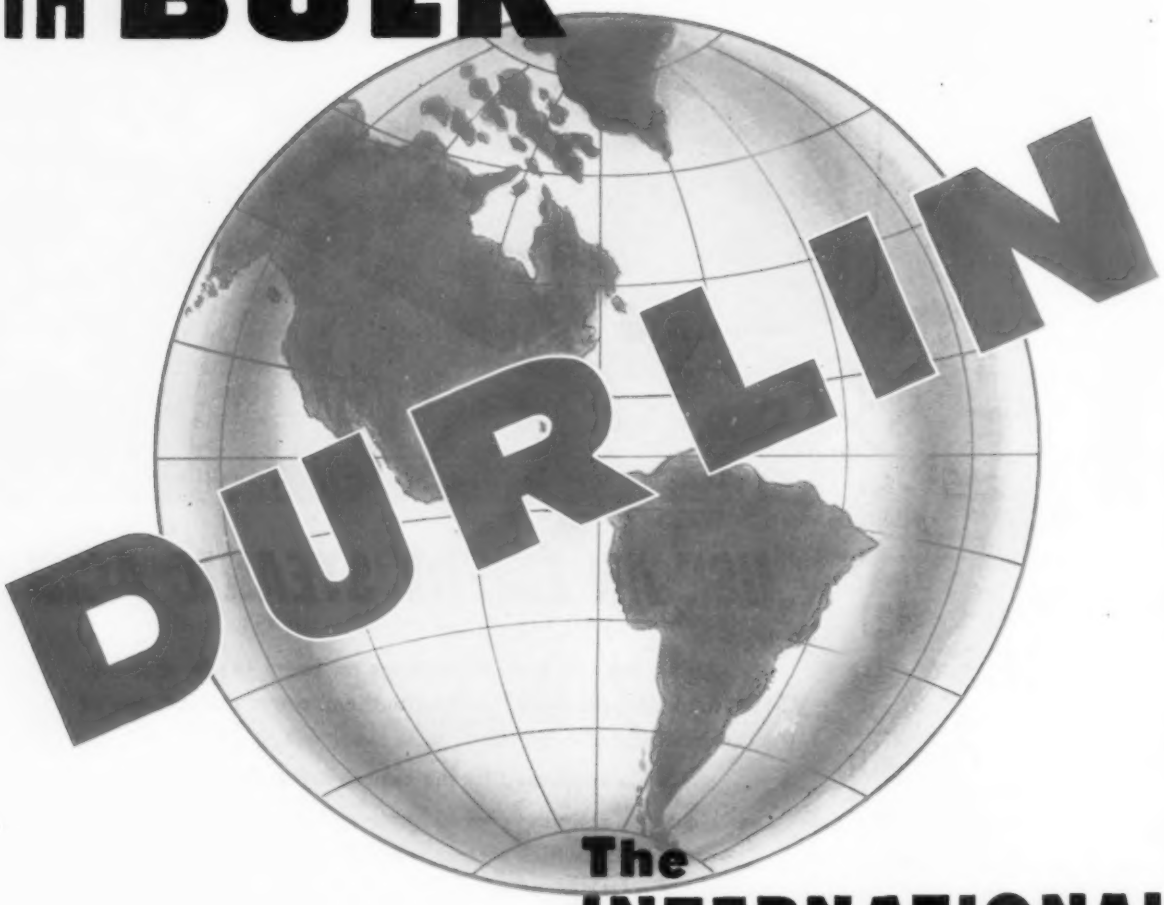

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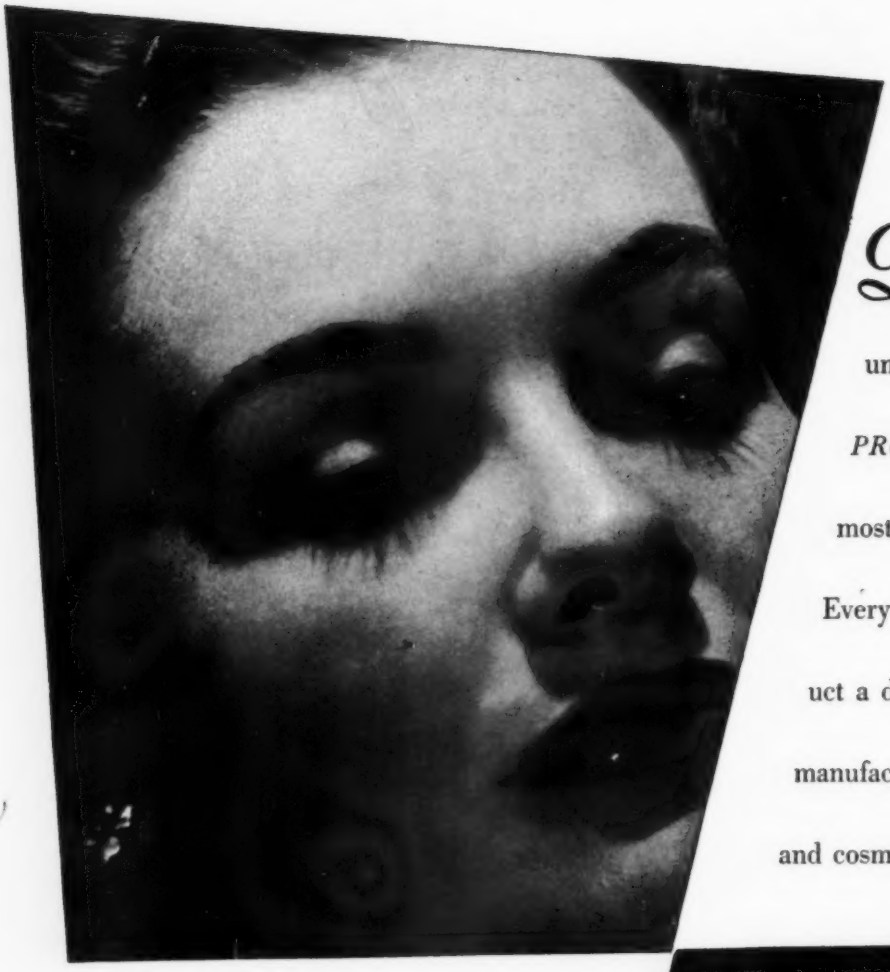

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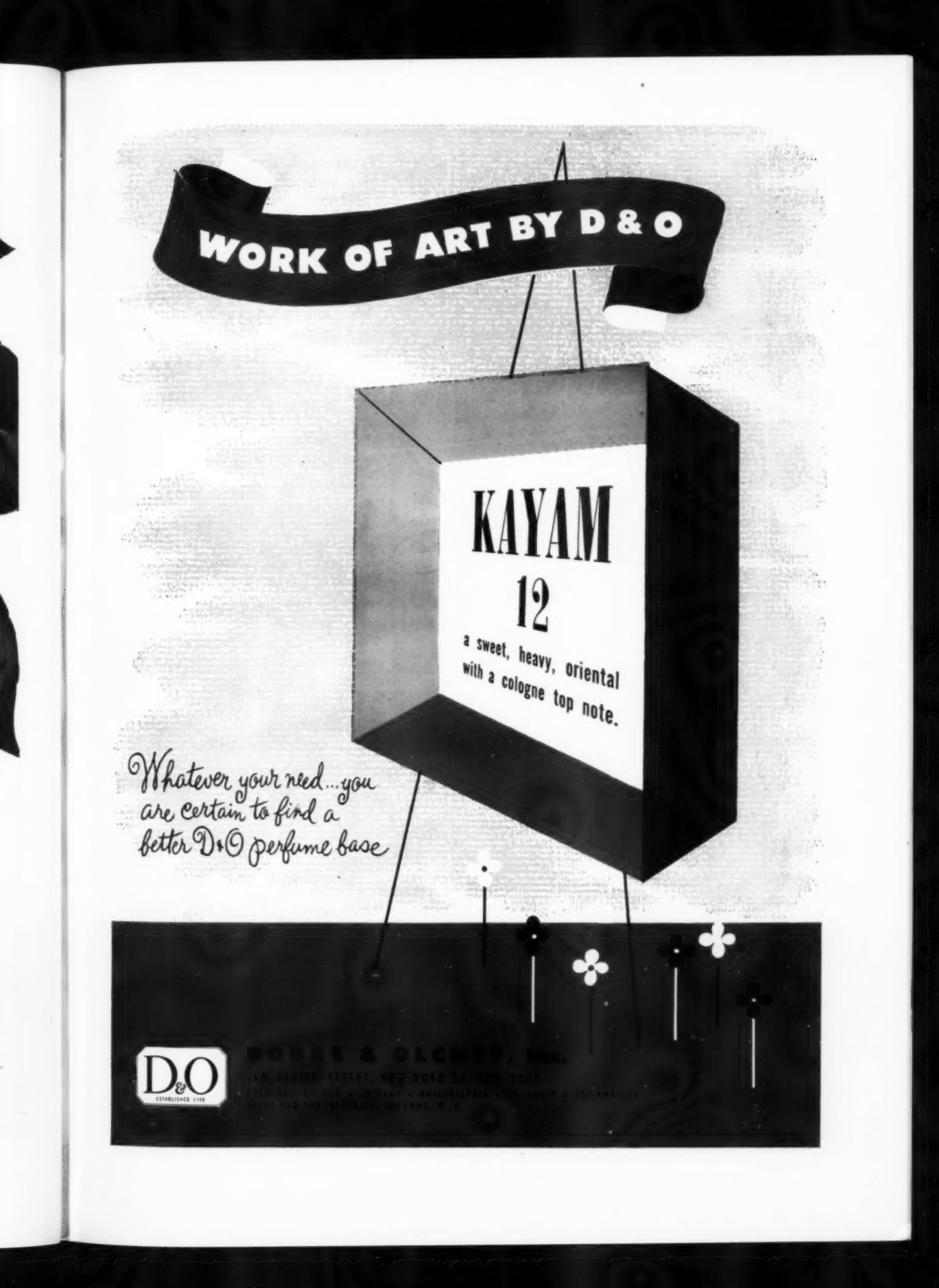
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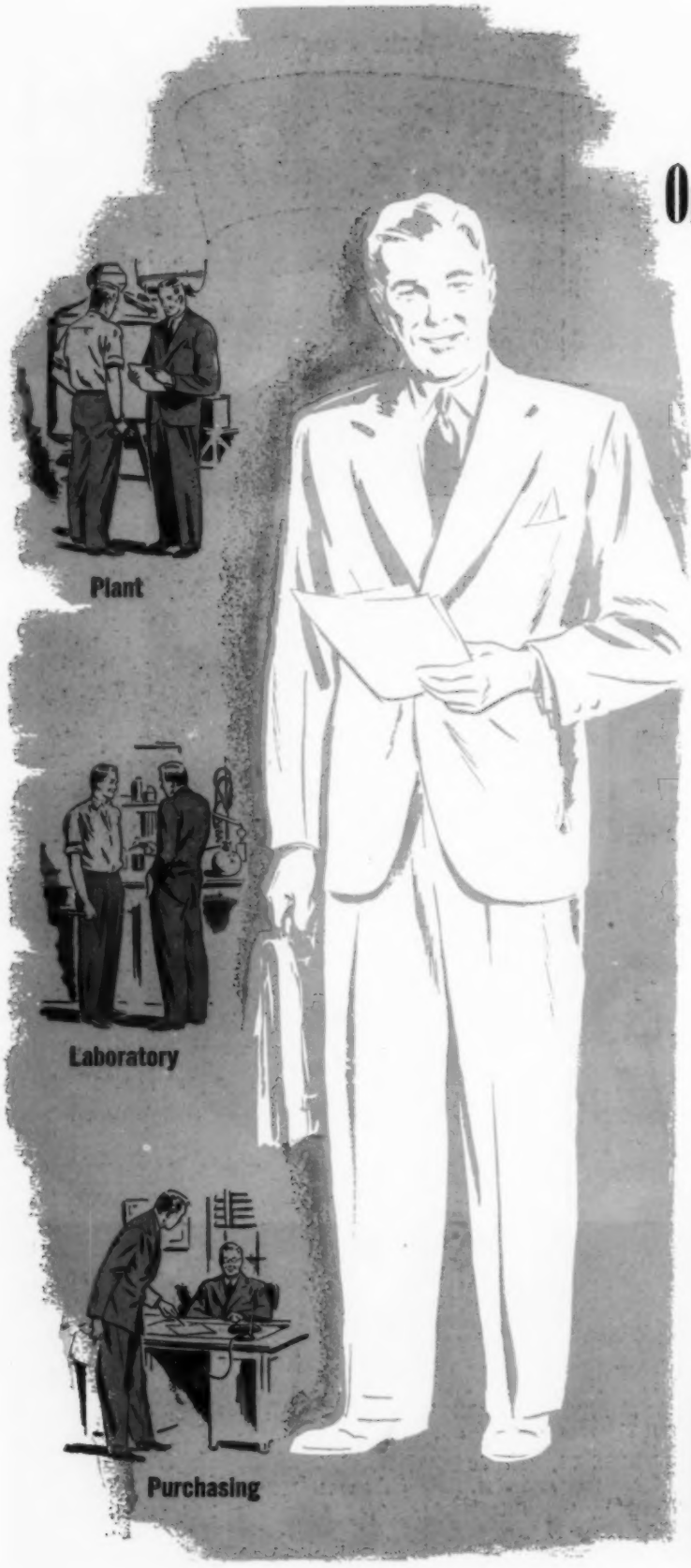

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Suggested Formula for O/W High-Pearl Ho:-Pour Vanishing Cream

(A)	Stearic Acid (triple pressed)	18.0%
	Mineral Oil 65/75	2.0%
	Lanolin (anhyd.)	0.5%
	Arlacel 83	2.0%
(B)	Potassium Hydroxide	0.7%
	Water	73.8%
	Preservative	q.s.
(C)	Arlex (Atlas humectant)	3.0%
(D)	Perfume	q.s.

Preparation: Heat (A) to 90° C., heat (B) to 95° C., withholding 15% of the water. Add (B) to (A) with stirring. Add (C) with remainder of water and stir to 60°C. May be poured into jars while hot.

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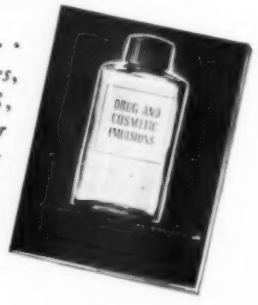

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objectives and perspectives

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Here, at Allied, you will encounter a compact organization of specialist-principals with a wealth of experience, geared to cog with the most modern scientific operations in the toiletries field. Yet, withal, an organization composed of men without poses... And who like to cook up things that aren't in a book ... a good test of skill and taste.

Always, we endeavor to incubate and inculcate merits that give a product EDGE... Sincerity and craftsmanship are the dual ideals which have foundationed our organization. When we assume the responsibility for manufacturing your product for distribution through broad trade channels... our reputation, too, is at stake.

Unlimited service to a limited number of clients has yielded excellent results. We have been most cautious in avoiding rapid expansion, knowing, full well, that mushrooming often produces toadstools.

These, in brief, are the objectives and perspectives to which we tenaciously adhere. And, we harbor the notion that your ship will come in provided you engage... the *right* skipper.

Avon Allied Products INC.

PRIVATE BRAND SPECIALISTS

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Derived exclusively from mares' pregnancy urine. Sold in bulk, with a firm guarantee of potency. Available in crystallizate powder form, in absolute alcohol and in vegetable oil solutions.

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Du Pont Aromatics

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

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Silver Was a Leper

Silver was among the many metals regarded by medieval alchemists as lepers which required healing into the perfection of gold. And, according to them, gold had attained its perfection by passing in succession through the forms of lead, brass and silver. Both gold and silver were believed to contain very pure red sulfur and white quicksilver; in other metals these materials were coarser and of different colors.

For transmutation of silver and the baser metals into gold the philosopher's stone was sought. Some alchemists claimed success, but so vague and mystical are their writings that they have little value except to show the tendencies of the age.

During the last three quarters of a century Mallinckrodt has specialized in the production of many silver compounds for medicine and industry. You are assured of uniform, dependable purity when you specify Mallinckrodt Silver Nitrate, Chloride, Cyanide, Iodide, Oxide, Protein (Mild and Strong), Lunar Caustic, etc.

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"It might be just a coincidence, boss, but the decline started about the time your wife insisted on being our model!"

KEEPING POSTED

German Drugs

A NEW blood substitute to replace plasma in emergency treatments, a blood sugar catalyzer for diabetics, and many new sulfa drugs and vitamins are among the drugs and medicinal products which have been discovered in the secret files of the German pharmaceutical industry. The processes for the manufacture of these new drugs and full details of their wartime use by the enemy have been brought to this country for further study by expert pharmaceutical chemists and technicians sent by the U. S. Armed Services, the Department of Commerce, and American industry. Among the many drugs which are now under study in this country are Periston, a blood substitute; Adrenochrome; Lopion; sulfa drugs such a Marfanil, Tibatin, and Badional; and the vitamin preparations, citrin, Hemodal, and Priovit. Adrenochrome, produced by oxidation of adrenalin, is a drug which acts as a blood catalyzer of sugar in the treatment of diabetes. It is not a substitute for insulin, but an adjunct to it. Lopion, an organogold compound, has been tested against tuberculosis. Although favorable results had not been obtained previously with this type of therapy, this drug may be the answer to part of this problem.

The new "sulfa" drugs had not been released here, having been used by the German army. Results attained by American workers with Marfanil do not bear out the German claims of activity. It is supposedly effective against anaerobic bacteria of gas gangrene, but is relatively ineffective against aerobes. One feature of the drug is that unlike other "sulfa" drugs it is not antagonized by p-amino-benzoic acid. Tibatin is especially active in penumonia and being relatively non-toxic may be administered intravenously. Badional is a new drug claimed to be effective in bronchopneumonia. It is administered by inhalation. This drug is highly soluble, neutral in solution, and is supposedly effective in lumps of the skin. It is being tried experimentally in pulmonary tuberculosis.

Among the vitamin products revealed as having been studied extensively by enemy research chemists and doctors is citrin, the permeability factor "P" which is obtained from natural sources. Research is in progress for increasing its solubility in water. Hemodal, a form of vitamin K, has been made synthetically. It was available in two forms, one for injection and the other for oral use. Priovit is a special combination of water soluble vitamin B (B_1 and B_2), with synthetic vitamin C and natural vitamin P.

Associated Chain Meeting

THE Associated Chain Drug Stores have announced that the September Business Meeting is to be held at the Hotel New Yorker, September 8, 9, 10.

F. T. C. Relents on Hospital Brand

IN 1943 the Federal Trade Commission issued a stipulation which prohibited a manufacturer from referring to his cough drops as "Hospital Brand Cough Drops." Recently an amended stipulation has been issued which allows the manufacturer to use the words, but the stipulation contains the following statements:

"The Commission deleted from a 1943 stipulation a proviso in which the company had agreed to stop using the name 'Hospital Brand' or any other term of similar meaning to describe or refer to its cough drops, the effect of which may tend to convey the impression that they are made in accordance with a formula prescribed or endorsed by a hospital.

"The Commission advised the respondent that its action in approving the amendment of the stipulation 'should not be construed as approval for representations, express or implied, that the preparation concerned is made in accordance with a formula prescribed, endorsed or approved by hospitals, nor as a determination by the Commission that the preparation is being or has been widely used in hospitals.' The Commission further pointed out that use of such representations 'would afford grounds upon which the Commission might again be required in the public interest to give further consideration to the question of whether the name Hospital Brand as thus used in the advertising was deceptive and should again be inhibited.' "

Amidone Under Federal Control

AMIDONE has been determined to have an addiction-forming and addiction-sustaining liability similar to morphine and has been made subject to the provisions of Federal narcotic control.

AMPA Plans Havana Meeting

THE American Pharmaceutical Manufacturers' Association has decided to hold its next annual meeting in Havana, Cuba, "to promote closer relations with the pharmaceutical industry and medical profession of Latin America." The meeting is to be held at the Hotel Nacional from April 12 through 14, 1948. The Association says that "in announcing this as a Pan American meeting, the APMA carries on the tradition of international scientific cooperation which it inaugurated when it crossed the northern border in 1946 to meet with the Canadian Medical Association and the Canadian Pharmaceutical Manufacturers' Association at Lake Louise." Association General Counsel Charles Wesley Dunn, original sponsor of the Cuban meeting is working on plans for the meeting. These include extending invitations to the Cuban medical society to collaborate, and to Central and South American countries to send official pharmaceutical and medical delegates. A strong business program on the order of the sessions held this year at Boca Raton is also promised. In scheduling the meeting, consideration was given to the fact that the National Wholesale Druggists' Association will meet the preceding week at Palm Beach, Fla. The dates selected make it convenient for those members who wish to attend both meetings as Havana can be reached by a short plane trip or overnight boat trip from Miami.

Therapeutic Research Committee

THE Therapeutic Research Foundation now has organized its Research Advisory Committee as follows: Dr. Harvey B. Haag, professor of pharmacology, Medical College of Virginia, Chairman; Dr. McKeen Cattell, professor of pharmacology, Cornell University Medical College, and Dr. Maurice H. Seevers, professor of pharmacology, Medical School at the University of Michigan. This Committee will assist in the planning, placement, and evaluation of research projects undertaken by the Foundation.

F. T. C. Commissioner Ayres Renamed

FEDERAL Trade Commissioner Ayres was reappointed by President Truman for another term and his reappointment was confirmed by the Senate. Thus it seems that the Commission is going to continue with the same personnel.

Pharmacy Grants

THE American Foundation for Pharmaceutical Education has voted, through its board of directors, monetary grants, totaling $125,000. The board stated that Fellowship grants of $50,000 would be provided students engaged in graduate work leading to a degree of doctor of philosophy. An additional $50,000 is to be used for strengthening graduate instruction in pharmaceutical subjects, and $25,000 was also appropriated to finance undergraduate scholarships. Nine Fellowship awards for Ph.D. degrees in pharmaceutical chemistry, pharmacy, pharmacology or pharmacognosy were renewed by the board of grants. Students are enrolled in graduate schools of Purdue, Ohio State, University of Washington, Iowa State, and Yale. Twenty-two new awards were allocated by the board for the same purpose at Purdue, University of Iowa, Western Reserve, Columbia, University of Wisconsin, and University of Maryland.

The Foundation elected the following officers: President, George V. Doerr, regional vice-president, McKesson & Robbins, Minneapolis; Vice-president, C. S. Beardsley, chairman of the board, Miles Laboratories, Elkhart, Ind.; Treasurer, S. B. Penick Sr., chairman of the board, S. B. Penick & Co., New York; Secretary, Dr. E. L. Newcomb, executive vice-president, National Wholesale Druggists' Association, New York.

New Vitamin A Reference Standard

ON THE recommendation of the U. S. P. Vitamin Advisory Board, the U. S. P. Revision Committee has adopted a new U. S. P. Vitamin A Reference Standard and has approved its immediate release and use. The new Standard becomes official January 1, 1948. The new Standard, which replaces the U. S. P. Codliver Oil Reference Standard for Vitamin A, consists of an encapsulated solution of Vitamin A acetate in cotton seed oil. The oil solution is assigned a value of 10,000 U. S. P. (international) vitamin A units per gram, and the content of each capsule is assigned a value of 2,500 U. S. P. vitamin A units. The Standard is packaged in bottles each containing one dozen capsules and priced the same as the current Codliver Oil Standard, namely at $3.00 per bottle, or $30.00 per dozen.

The Sterling Story

"THE Sterling Story" is a 50-page book giving the history of Sterling Drug from its founding in 1900 to the present time. The book is being distributed by the corporation to some 12,000 employees and to stockholders of the corporation.

Cosmetic Decline and Inventories

IN AN attempt to discover the reason for the decline in purchases of cosmetics by retailers from manufacturers, during the first four months of 1947, the research department of McCann-Erickson, advertising agency, conducted a survey which established the fact that the primary causes were abnormally high inventories coupled with a tendency to reduce them to their normal level. From figures based on the toilet goods and drug index for department stores, as developed by the Federal Reserve Board, cosmetic market sales for the average of the first four months in 1947 ran only four per cent below 1946. But January 1947 inventories were 32 per cent above those in January 1945. The very rapid decline in inventories during the first four months in 1947 explains the discrepancy between retail sales and manufacturers' shipments. However, since inventories reached a normal level around April 1947, manufacturer sales to the trade are now moving towards normalcy. The survey also established the fact that apart from year to year deviations caused by the change of general economic conditions, there is a perpetual increase of 3.3 million dollars per year, probably due to the gradual inclusion of younger age brackets and of male customers into the cosmetic market.

German Companies in Sweden

THE German company, A. B. Schering of Stockholm, Sweden, is being sold. The company's assets consist of 500 shares of stock, 80 trade marks, and 88 patents. A. B. Wulfing, another German company in Sweden which has 18 trademarks, is also being sold.

Science Bill Vetoed

THE National Science Foundation Bill was given the pocket veto treatment by President Truman "with deep regret." The President said that the bill "is so complex and unwieldy" that there is "grave danger that it would impede rather than promote Government efforts to encourage scientific research." He also said that the bill as drafted would place the entire responsibility for spending a tremendous amount of money in the hands of people who would not be accountable to the President or Congress. He hopes that the next session of Congress will enact a bill that places responsibility for spending under controllable sources.

Amino Acids Coming Along

WHILE the amino acids are still far from hitting their full stride, remarkable progress is being made. These products have been talked of for many long years, but is only quite recently that they are starting to come into their own. It has long been predicted that these preparations will eventually be one of the biggest group of preparations in the pharmaceutical industry. However, these nutritional therapy products still have quite a way to go.

Commissioner Ayres on Trade Conferences

FEDERAL Trade Commissioner William A. Ayres, who was recently reappointed by President Truman, issued, on August 5, the following statement regarding trade practice conferences. This statement should prove extremely interesting to manufacturers in this industry.

"There apparently has been considerable misunderstanding concerning the position of the majority of the Commission with respect to trade practice conferences and stipulations. Certainly there has been misunderstanding concerning my position. Those procedures are not new in our operations. They have long been used and their value in obtaining a cooperative and widespread observance with laws we administer has been fully established. I have vigorously supported the use of those procedures, and shall continue to do so.

Experience has proved, however, that the effectiveness of those procedures has definite limitations. Because their force lies primarily in the moral conscience of those who enter into agreements with the Commission, they cannot be more effective than the good faith of the parties involved. Obviously they are not adaptable to all situations, and their use should never be permitted as a means of evading or delaying the effectiveness of the laws we administer.

"There are situations in which legality of their use involves serious questions. They cannot fully replace formal adversary proceedings and an effort to discredit or weaken our statutory adversary processes constitutes a frontal attack upon the laws entrusted to our jurisdiction.

"A motion has been pending before the Commission for several months proposing certain changes in our statement of policy on cooperative procedures. It has not yet been voted on. I have been ready to vote on it since it was offered, however, and I am confident that it could have been brought to a vote at any time. I consider that the subject is of great importance and that the Commission's position should be clarified as soon as possible. If the sponsor of the pending notion does not bring it to a vote promptly upon his return from vacation, I shall ask for a full consideration of the matter, and shall make specific proposals thereon, which I have been ready to offer for some time. Until I have made my proposals to the Commission, however, I do not feel free further to disclose their details, except to say that they involve certain important differences from proposals which have been made."

Times Are Changing

MANUFACTURERS in this industry are keeping their ears close to the ground in an effort to determine future trends. Changes are coming thick and fast as we work away from the war and postwar plans are being put into effect. Full effect of these changes probably will not be felt until such time as the tremendous domestic and export demand slackens to the point at which manufacturers will feel the necessity of maintaining their sales volumes by sharp competition.

Rebottling Ban Upheld

THE Court of Appeals of the State of New York, which is the highest court in the State, has upheld the decision in the case of Guerlain vs Woolworth in which it was decided that under the Fair Trade Act of New York State a manufacturer could maintain a minimum resale price on a dram or less of perfume, thereby substantially prohibiting the rebottling of perfume below a certain minimum quantity. The case was concerned with the rebottling of Guerlain perfume in the form of "Nips," and the court held that under the Fair Trade Act, Guerlain could prohibit the sale of any rebottled Guerlain perfume amounting to a dram or less, for less than a specified price. This decision is final and is now the law in the State of New York.

Winthrop and Stearns Merge Sales

STERLING Drug has merged the sales staffs of two of its pharmaceutical manufacturing subsidiaries, namely Winthrop Chemical Company with headquarters in New York and manufacturing laboratories in Rensselaer, N. Y., and Frederick Stearns & Company, with offices and plant in Detroit. The entire field staffs of both companies will be consolidated into a single staff selling products of both units, and the new selling organization will emerge with forty per cent more sales territories than Winthrop—the larger of the two units—now has. Joseph G. Noh, vice-president and director of sales of Winthrop will be sales director of the new organization.

To Study Boric Acid Efficacy

THE Therapeutic Research Foundation has instituted a study to determine the toxicity of boric acid under conditions of average use, and to establish its true antiseptic worth. Various preparations of boric acid in the usual strengths prescribed for numerous different purposes will be studied.

More Detergents

SYNTHETIC detergents are getting to be big business with our chemical manufacturers. Monsanto Chemical Company announced early this month that its new $3,000,000 synthetic detergent plant at Monsanto, Ill. is now completed, giving the company additional large scale facilities for manufacture of Santomerse No. 1, which will also continue to be manufactured at the company's Nitro, W. Va. plant. Early this month, Monsanto advertised in the New York newspapers that this product was now available for repackagers.

Penicillin Waste for Feed

PENICILLIN waste, which was once thought useless, is now being marketed in large quantities as an enrichment for livestock feed. Investigators at Lederle Laboratories have found that the spent mash in which the penicillin mold is grown contains a high percentage of vitamin B factors. Therefore, Lederle's parent company, the American Cyanamid Company has started conversion of the mash into an additive for livestock feed at a new plant near Pearl River, N. J. where Lederle is located. The food enrichment is said to cost a farmer less than one dollar per ton of food.

To convert the spent mash into a vitamin feed-enrichment, a spray-drying plant was built near the building where penicillin is produced.

Northam Warren Opposes Marks

THREE applications for registration of trade-marks filed by Cutico, Inc., were successfully opposed by Northam Warren Corporation which company claimed that these marks were confusingly similar to the well-known trade-mark Cutex. The marks which were refused registration are Cutigroom, Cutisolvent, and Cutistick.

Booklet on Labeling and Advertising

DR. FREDERICK J. CULLEN, executive vice-president of the Proprietary Association, has issued a booklet for assisting manufacturers in the preparation of drug labels and advertisements by citing interpretations of the Food, Drug, and Cosmetic Act and the Federal Trade Commission Act issued recently by the Federal Courts and Government agencies. The booklet is entitled "Information on Labeling and Advertising." Numerous common illnesses for which drugs are marketed are listed together with decisions from the courts and Washington agencies regarding their labeling and advertising.

Green Dentifrice

WELCO, Incorporated of Newark, N. J., has been marketing locally a green toothpaste called, Chlorydent, made from a formula containing chlorophyll, the stuff that makes grass green.

While chlorophyll has been used in soap, medicine and deodorizers, it is believed by Welco, that this is the first time it has been used as an ingredient in a dentifrice. Welco will no doubt find support from doctors who during the last war used the chemical to aid wound healing and to treat various mouth and gum infections. But for the present Welco is soft-pedaling the healing properties of chlorophyll, and feature the green hue, having made the phrase "green toothpaste" part of its trade-mark.

F. T. C. Trade-Mark Division

THE Federal Trade Commission has established a trade-mark division in the office of the general counsel for the purpose of performing the duties assigned to the Commission by the Lanham Trade-Mark Act. Edward W. Thomerson, attorney on the Commission's legal staff since 1934, was appointed assistant general counsel in charge of the new division. The Commission says that: "The Lanham Act authorizes the Commission to apply to the Commissioner of Patents for cancellation of the registration of trade-marks on the principal register which are deceptive, immoral or scandalous, or which have been obtained fraudulently or which are in violation of the other stated provisions of the Act." It seems that there is a difference of opinion between the Federal Trade Commission and the Commissioner of Patents, who is responsible for the enforcement of the Lanham Trade-Mark Act, as to the extent of the authority of the Federal Trade Commission in intervening trade-mark proceedings.

Ball Point Lipstick

RO-LON, a novel lipstick applicator which utilizes the ball-point principle will shortly be on the market. The applicator is the size of the ordinary lipstick container, with a plastic ball mounted at the tip. The lipstick contained inside the case is pressed against the ball by a spring. As the point is moved across the lips, the plastic ball picks up a film of color from the lipstick and deposits it on the lips.

Claims for the new gadget say lipstick lasts three times as long with this method, when the lips become greasy, the ball will no longer turn. Since it remains inside the case, the lipstick cannot break and is kept sanitary. There are no reports so far, as to how it works under water.

A Better Shampoo

SEARCH for a new source of penicillin in Britain led to the discovery of a better hair cleansing agent which is now being marketed as a consumer product. It seems that British scientists found cystine to be an excellent source of penicillin. Cystine is extracted from human hair and no means was at hand to cleanse the hair well enough for this purpose. A formula for a superior form of shampoo was developed with the result that this improved shampoo is now being made available to the public.

Propylthiouracil Warning

THE Food and Drug Administration has issued a warning statement to appear on labels of propylthiouracil, which is rapidly replacing thiouracil for treatment of some thyroid conditions. The warning follows:

"Warning: This drug may cause unfavorable reactions in some individuals. Your physician will explain the symptoms which must be watched for and precautions to be taken to guard against ill effects. Do not take in larger doses or more frequently or for a longer period of time than specifically directed by your physician."

New drug applications have been made effective with the understanding that if and when sufficient clinical evidence has been obtained, it will be waived.

International Pharmacopoeia

AN INTERNATIONAL pharmacopoeia is in the course of preparation by the International Commission of Pharmacopoeia Experts, and Dr. E. Fullerton Cook, chairman of the Revision Committee of the U. S. Pharmacopoeia, has been appointed as the representative of the United States on this commission.

Top Drug Advertisers

STERLING Drug topped all drug and toiletry manufacturers as the heaviest advertiser in magazines, newspapers and radio in 1946, according to a recent list issued by the Magazine Advertising Bureau. Other leading advertisers include Colgate-Palmolive-Peet Co., Bristol-Myers Co., and Miles Laboratories.

The total spent by Sterling for the three media for 1946 was $12,760,516. Colgate spent $10,311,746. Bristol-Myers, $7,145,060, and Miles Laboratories $6,331,382.

American Home Products is reported as having spent $9,572,125 for all its products, of which $5,083,393 was used for its drug lines and $1,817,689 for toiletry products. Lever Brothers spent $10,733,532 in all, of this $3,590,466 was for toilet preparations. Lambert Pharmacal Co., was listed as laying out $3,650,219; Andrew Jergens Co., $3,354,328. The study pointed out that a majority of companies use magazines as their chief means of advertising.

Waste of Scientific Manpower

ALMOST 40 per cent of the chemists in military service during the war were not in posts that utilized their scientific training to the best advantage, according to a survey conducted recently among members of the American Chemical Society.

The extent of unsatisfactory use of these services varied somewhat according to education. It was less among Ph.D.s then among those of lower academic rank. Many of the chemists who entered the armed services were members of the organized Reserve Corps prior to the war. Interestingly enough, about 35 per cent of these maintained that their services were not properly utilized. Similar percentages hold for those who were commissioned directly from civilian life.

Among those who were drafted, the percentage, who claim improper utilization is much greater. The report suggests that a key to a more efficient organization of these chemists in the utilization of their services, lies in the better placement of personnel who are in the organized reserve.

The report notes that the Army's research and development division has taken a keen interest in the poll conducted by the American Chemical Society, and has taken steps to have a questionnaire of the type used by the Society to circulate among other scientific groups.

In conclusion, the report states, "Results of this poll indicates that a large portion of our scientific manpower was not efficiently used. If results from other scientific groups bear out the results of the ACS poll, and there appears no reason why they should not, they will clearly demonstrate the need for some action to prevent the recurrence of such waste of technological manpower in the event of a future emergency."

Amphogel Mark Defended

THE Court of Customs and Patent Appeals recently held that the trade-mark Vanogel is confusingly similar to the trade-mark Amphogel. While visably the marks are distinguishable, they have a number of the same syllables and the suffix of each is pronounced the same. Also so when spoken, both have the same cadence and a little distinguishable difference in sound. It was held that the applicant was attempting to profit by the opposer's good will in deliberately adopting confusingly similar package dress in connection with the mark. The companies involved were Wyeth, Inc., owner of Amphogel, and Van Pelt & Brown, Inc.

DDT At New Low Price

INCREASED production resulting from increased use is a strong factor in reducing costs of chemicals. DDT is no exception to this general rule, and on August 4 it declined another nickel in price, being offered at 37½ cents for carlots, up to 43 cents for single 100 pound drums. Here is a product that was sold in 1944—only three years ago—at $1.60 per pound, now selling at only one quarter of that price.

The Folic Acid Race

GETTING folic acid to market, now that it is available in quantity through synthesis, has all the pharmaceutical manufacturers on their toes. This is the big new factor in the vitamin picture and every manufacturer is trying to get the greatest distance along the road first. The pharmaceutical manufacturing business is an increasingly fast moving business these days.

Industrial Sugar Rationing Ends

CONGRESS enacted legislation which would extend the sugar rationing program to October 30, 1947, but the Appropriations Committee failed to include funds to continue the program.

Therefore, it has been announced that the industrial sugar rationing program ended at noon, Eastern Standard Time, July 28th. However, the Department of Agriculture has announced:

"Records in connection with price control on sugar must be kept, subject to examination by the USDA until October 31, 1948. The continuing work on sugar price and inventory controls will be handled under the direction of the Sugar Branch, Production and Marketing Administration, USDA. Pending correspondence on these discontinued program operations and on applications for adjustments or issuance of sugar bases will not be answered or acted on.

"Briefly, the new sugar inventory controls provide: (1) a general limitation of sugar inventories for any person (other than household users) to a maximum of 2,000 pounds; (2) a limitation for any industrial or institutional user of 140 percent of the quantity used during the corresponding and next succeeding months of the year ended June 30, 1947; (3) a limitation for all wholesalers or retailers to quantities equal to those sold by them during the preceding calendar month; (4) in general, no limitation is made for primary distributors. However, if a primary distributor is also an industrial user, the limitation applicable to industrial users applies. Primary distributors include refiners and importers."

THE GROWING DRUG MARKET

THE drug manufacturing companies in this country are, for the most part, continuing to expand their operations. By and large, they are adding to their plant facilities, their sales staffs, and their detail staffs. As a result they are generally being crowded as to manufacturing space, equipment and office space. This seems to be for the reason that at no time in this nation's history has there been such a widespread realization of the value of drugs and pharmaceuticals as aids to real health. The products of the industry obtained outstanding publicity during the war years, and this publicity is continuing in the postwar years. A great deal of the basis of this publicity has been, and still is, the result of the work done by Army, Navy, and Veteran medical staffs. But another large portion of this publicity is the result of completely new treatments for conditions that were formerly very difficult to control.

The sulfa drugs and the antibiotics are probably foremost in the people's mind when new advances in therapy are considered. Certainly these two classes of products are foremost in the mind of the medical profession in all cases of infection. As a matter of fact, many general practitioners are, in a great many cases, relieved of the difficult task of diagnosing an apparently infective case. They merely inject penicillin and wait a couple of days, the infection disappearing in the great majority of instances. This is particularly true in the case of children who get redness of the throats and some symptoms of a cold. In many other cases the doctor will give sulfa drugs in much the same way, and sometimes he will administer both sulfa and penicillin to be sure. In a great many cases the doctor does not know what he is fighting, and he merely uses these drugs empirically or in the way that a layman would dose himself with various preparations. However, the difference between the doctor doing such a thing and a layman doing the same thing is that the doctor is able to make a thorough and proper examination of the patient before prescribing these potent drugs. He is able to tell that it is not any of the diseases or conditions that call for special treatment of another kind. This is something that the layman has no way of determining.

Despite all the abuse hurled at vitamins by the medical profession and other writers on medical and health topics, these products are probably in more widespread use today than ever before. And this condition is solely the result of the doctors prescribing them for all manner of conditions in which they have been found to be beneficial There can be no question in anyone's mind that vitamins can be used effectively in many conditions. Furthermore the extent of vitamin therapy has by no means been fully explored or fully exploited. The latest factor in the vitamin picture is folic acid, a

very important vitamin B factor which is now synthesized. This is now getting under way with great force as the pharmaceutical manufacturers detail the doctors on this important product.

Producers of vitamin capsules and tablets are having a difficult time keeping their products down to a size which can be swallowed easily as these new factors are added. If many more factors are added, the time may come when one will have to swallow two capsules instead of one to get all the factors desired. It is quite a widespread opinion that a person deficient in one of the vitamin B factors is deficient in all the vitamin B factors in a more or less degree. Therefore, the tendency is to prescribe a preparation that contains all the factors, rather than a preparation that contains only one or two.

One of the difficulties with vitamin preparations has been that the doctors do not prescribe heavy enough dosages with the result that the person taking them does not get the effect which he should get from them. Doctors will prescribe three a day, one before each meal, while the manufacturer's circular enclosed with the package will advise that from six to nine be taken daily until a bottle of one hundred capsules is used up, the patient then lessening the dosage to three a day. This is to build up the dosage quickly at the beginning to overcome the deficiency that exists. After the deficiency is overcome, the daily deficiency can be overcome with a smaller dosage. We spoke to one doctor about this and he said that the capsules were expensive —almost five dollars for a bottle of one hundred. We asked him if he thought the use of nine capsules a day at forty-five cents was a very high price for good health. We furthermore told him that he couldn't get one drink of good liquor—only a temporary pick-up—for the same price. There is no question that five cents a capsule seems to be a pretty good price for a vitamin preparation, and perhaps they will be cheaper in the future. But if manufacturers keep adding new factors and increasing the potency of the capsules, it is difficult to see how any noticeable lowering of prices will be possible. Lower prices would doubtless spread the use of these products and make for better health generally throughout the Nation. But practically all vitamin preparations are now promoted and sold through ethical channels and this means that top prices are obtained for them by the retail druggists who dispense them. Under the circumstances, the druggists are not anxious to see lower prices as this would cut their margin of profit. Therefore, the question of lower prices is tossed right back into the lap of the manufacturers and there it will probably stay to be determined on a cost basis.

The amino acids are gradually arriving after the many long years that have been devoted to the development of these preparations. Numerous synthetic amino acids are now available and their use is to be extended on a program which might seem slow to many, but which, nevertheless, is steady. At a time not too far distant, these preparations will represent one of the main group of products of the pharmaceutical manufacturers and of the prescription counters of the retail druggists. They have a very definite place in nutritional therapy and the development of them for the market is mainly one of chemistry and pharmaceutical manufacture.

All of these products, and many other products which are now being widely used, have increased the business of the pharmaceutical manufacturers and of the wholesale and retail druggists to a great extent. This is the reason for the great expansion program on the part of the manufacturers and it is also the reason for the aggressiveness of chains in seeking new and larger outlets. This is why the shortage of pharmacists created by the draft for the war, is now felt so acutely. Manufacturers and retailers alike are searching hard for good pharmacists, since they need them urgently. It will be a number of years before this shortage is overcome.

The pharmaceutical manufacturers also are searching for good detail men. Most of them are trying to build up their detail staffs to greater numbers than they employed before the war. They feel that this is necessary because of the greatly increased volume of business now being done through ethical channels. Also the large increase in the number of important products that are now coming out of the laboratories of the ethical manufacturers make it essential that large detail staffs be available to place these products intelligently before the medical profession of the country in the shortest possible time. How the doctor is going to interview all these additional detail men and still keep up with his practice is something that the pharmaceutical manufacturers do not seem to be too greatly concerned about. They expect to train their detail men in a way that the doctor will be willing to give them the time to present their stories. However, we have heard busy doctors complain about the amount of time that these detail men want, and we just wonder how the detail men are going to make the calls.

Busy physicians as a rule are quite well acquainted with the products of most manufacturers, although it is true that they do not have full knowledge of the newer products unless they take the time to do a great deal of reading. However, the successful pharmaceutical manufacturers who are on top have built up their businesses for the most part through the use of a well-trained detail staff. Therefore, this course is going to be followed since no other or better method of promoting pharmaceuticals has appeared on the scene.

Can Cavalcade in the Corner Drug Store

By DAVID S. BURT

The Air Corps dropped a lot of things from the sky in World War II. One of these things, like most of the others, fell earthward in a metal shell. But this was no "A" Bomb, or anything like it. This shell wouldn't have blown up a doll house. This, in fact, was a sort of anti-explosive, designed not to take life, but to save it.

When this particular shell first plunged from a plane, a group of men huddled in a corner of the air strip below. This was a test. Their laboratory was the sky and the earth. As the shell struck, they scurried to the spot and circled eagerly around. The shell looked like an overgrown tennis ball can with a key soldered at one end. One of the men plucked the key, unravelled a tear strip seal, and peered inside.

Carefully, he pulled a strange assortment of objects out of the can—two bottles, a double-ended needle, a glass tube, an airway needle, an observation tube with an intravenous needle at the end. After tumbling thousands of feet, none of this fragile equipment had shattered. Everything was in perfect order. It *had* to be. This was a kit for injecting human plasma.

The Army and Navy had called for a germ-proof, damage-proof plasma kit. It must withstand the severest sort of rough-and-tumble, the worst extremes of climate. You might have to drop it from planes. A tin can rarely enjoys such a dramatic role in peacetime though. Every year, production lines turn out about 24,000,000,000 cans, 650 for every American home. The can's usefulness has made it a commonplace domestic thing that tumbles no farther than five feet from a medicine cabinet to prove its worth.

The plasma can stemmed from a multi-branched family tree of metal packages.

During the past century, druggists and doctors had turned manufacturer, pioneered a succession of brand name remedies for health, comfort, and beauty. Each remedy in turn posed its own packaging problems. Metal cans were called, time and again, to help solve those problems—a remedy to remedies.

This year, war-absent materials, sheet metal especially, are gradually becoming available again. Packaging decisions are on the agenda. So, now is a strategic time to review these metal cans. What historic demand gave birth to them? What need have they satisfied? The roots of this can family tree are buried in a time when Jenny Lind made her concert debut at Castle Garden in New York, when engineers were laying the first Atlantic cable.

One afternoon in the eighteen fifties, a Philadelphia druggist leaned across the counter and spoke his mind. "Your son, an apothecary? Heaven forbid!" he warned a friend. He pointed to a sack of cream of tartar crystals in the corner. Grinding those pesky little crystals took weeks of drudgery, ergs of energy—if you didn't grind your mortar and pestle to a powder first.

While the druggist lamented, Charles Hagner happened into the shop. Unwittingly, Hagner kibitzed a turn of history that afternoon. He set the scene, too, for a cavalcade of metal cans—periscope-topped, sprinkler-topped, slip-covered, hinge-covered, glider-covered, square, oblong, round, oval, tall, squat, slender—billions of them, embellished with enough labels to stitch a crazy quilt that could blanket the state of Texas.

Hagner probably hadn't the faintest idea how to make a tin can. It was only by pure accident that he had anything to do with the drug business. His claim to greatness was simply this. Hagner was a paint grinder.

He knew that the druggist was squandering his gloom. At a paint grinding mill you could pulverize the toughest chemicals in an easy jiffy. He asked the druggist to lend him the cream of tartar sack. It was time these apothecaries learned the facts of modern production.

Hagner returned the sack the next day. The druggist blinked with astonishment. Here was a pile of dusty powder. How could you do a week's work in a day? He smelled a hoax. Maybe this wasn't cream of tartar at all. He called his fellow apothecaries over to the shop. They thought he was hoaxing *them*, until Hagner showed them all how the job was done.

A piece of homely common sense had spanned the gap between two commerical eras. A new industry would grow in Philadelphia, and all over the nation. It would open a tempting market for can manufacturers who, up to this point, has made food containers almost exclusively.

In Hagner's time, the can industry edged towards the brink of its own industrial revolution. In a few years, low cost machine-made metal-cans were to roll off production lines in gargantuan volumes. When drugs and cosmetics converted to mass-production, the can industry was ready, just in time, with a vehicle for mass-packaging. Cans were the toughest sort of protection for remedies that travelled by road, rail, or ocean transport. Cans could woo a window shopper's glance, cancel the hazards of a slippery wash basin, sprinkle flaky powders in a fine snow, make headache remedies a portable convenience.

In 1850, the Yankee can industry was an infant thirty years old. The drug industry, by way of contrast, was alive thirty-four centuries before, when Moses was tending his flocks in Egypt. The Pharaoh used to relieve his headaches with a compound of coriander, wormwood, juniper, honey, and opium—a permanent remedy, perhaps, if you took a large dose. Queen Schlesh of the third dynasty anointed her scalp with a guaranteed hair grower—equal parts of the heel of an Abyssinian greyhound, date blossoms, and ass's hoofs, boiled in oil. In another part of the world, the Chinese were discovering that goose grease was an excellent penetrant. They prescribed a toad's eyelids for coryza, earthworms rolled in honey for gastritis, raw centipedes for children's diseases.

Four generations from the Lyons family tree—Dr. Lyons sold his first dentifrice to the trade as bite-your-own tablets. In 1878, he began to sell tooth powder in bottles, then switched to a can with a "patented telescoping top." The streamlined Lyons can of today stands at the right. (Courtesy of Sterling Drug, Inc. and Warshaw Collection of Business Americana.)

During past decades, talcum cans mirrored the fashions of the day. The talcum lady appeared in flowing classic gowns, later skirt-above-the knee, finally in bathing suits.

Here are some of yesterday's tin plate fashions. Some manufacturers saw display value in the lithographed likeness of a cherubic infant, the maker himself, flamboyant festoonery. Others chose a fancy-shaped container.

So, in viewing history's medical panorama, you find lithographed metal cans in the far right hand corner, something that blossomed on a yesterday a mere century ago.

Yet in terms of ancient history, drugs and metal cans have a bond in common. That bond is the personnage of Hermes Trismagistus, the legendary father of the drug, medical, and alchemic sciences. He is the source of the word, "hermetic," common enough in any can-maker's vocabulary. "Hermetic" joined the language because the formulas of alchemy required snugly sealed containers. But Hermes Trismagistus never enjoyed the luxury of hermetically sealed cans. And the earliest cans known to drugs and cosmetics were not the hermetic type at all.

Living in Hagner's time, you might have seen the first metal cans appear on apothecary shelves. The luster of tin plate had just begun to glisten among the symbolic jars and bottles, labelled "Ulmus Contus," "Burnt Umber," "Cascarilla," "Subcarbonas," "Iron Weed Root," "Wild Ginger Root," "Calendula Flowers," and so forth down the line. The new metal cans looked like a deglorification of the sugar and salt cans on your kitchen shelf—round or square with simple slip covers. Metalsmiths fashioned them by hand. Their seams were crudely joined. Their roughly finished surfaces were painted with the labels of raw products which the apothecary compounded into remedies by candlelight. Some of his suppliers were beginning to deliver in these new metal squares and cylinders. They cut down on breakage losses.

The pre-Civil War tin can was the work of a craftsman, not a production line. But out of the night of those war years, a new dawn rose over the can industry. Generals clamored for tin cans to protect their troops' rations. By force of overwhelming demand, can-makers built a new annex to their plants, bought these new-fangled can "bodymakers" that you peddled like a parlor organ. During a few tumultuous years, the infant can industry matured to a spindly-legged youth six times as large.

In the meanwhile, patent medicines were moving off the street curb into the corner drug store. Columns of stern be-whiskered medicos stared at you from the labels on the shelf behind the counter. Among the trade-mark portraits of "our founder," you might see a bottle of India cologne, labelled with the poignant scene of an angel floating down from the great beyond—for all the world like a Barnum & Bailey trapeze artist—bearing solace to an ague-ridden granny. Enticing slogans made these remedies as tempting as mince pie. There were heart-shaped pills that "impart to the breath the exquisite aroma of the violet," liver bullets that "regulate the bowels of the earth," pastels that "cure everything but a broken heart."

But in 1878, the most glamorous thing on the shelf was a round green tin can. It was topped with a conical roof which tapered to a small cylindrical dome. This dome was telescope affair. When you pulled it out, a small dispensing hole emerged on the side. The can

was embellished with no be-whiskered medico, no celestial messenger, but the classic profile of a beautiful woman. This, the label said, was a tooth powder can, bearing the product of a downtown New York dentist, Dr. I. W. Lyons, D.D.S.

Lyons had launched a dentifrice business in 1866. His knack for invention must have been a professional convenience. In those years a dentist had to invent almost everything but the teeth he pulled. He compounded his own amalgum. He designed his own office equipment. Carving a set of false teeth was a feat of delicate handicraft. But beyond all this, Lyons was blessed with a strain of promotional genius that others lacked. He also possessed another pride for others to envy—a strikingly charming wife. Her name was Pamela.

Lyons designed and promoted a patented adjustable dentist's chair. He manufactured a dental cream sold in bottles with a patented spoon attached to the cork. In the eighteen sixties, he decided to furnish ready-made tooth powder to fellow dentists, his private formula. At first, he pressed the powder into a slab grooved into sections like a chocolate bar. This brittle bar dentifrice crumbled easily, demanded a protective package. So Lyons distributed the product in a flat oval metal can, shaped like a traveler's soap box. By way of decoration, only one trade-mark pattern would have satisfied promoter Lyons—the likeness of his lovely wife, Pamela.

Inside each can, Lyons placed a small piece of tin. Dental patients used it as a knife. They cut out a square of dentifrice, dissolved it in their mouths. The dentist's brush completed the ceremony.

Lyons was not only a dentist, inventor, and promoter. He was a crusader as well. He expounded a radical, if not visionary, doctrine that may have frightened some of his patients half to death. People, he insisted, should darned well brush their own teeth. Dental scrubbing must extend beyond the narrow confines of the dentist's chair. It must begin at home.

Lyons was never satisfied with an idea unless he did something about it. Soon he was packing a dentifrice for amateurs, this one in powder form. He began to retail it with a green hand-blown bottle. Laboriously, consumers educated themselves to tooth-brushing, but before long Lyons found he couldn't fill his orders fast enough. The bottle-neck in his production was, actually, the bottle neck itself. When you poured powder through the narrow hole on top the dentifrice pyramided on the inside. Packing was slow. Moreover, consumers couldn't measure out the powder in small units.

So, Lyons staked his trade on the revolutionary tooth powder can. You filled it while it was still a topless cylinder. The entire diameter of the can was open for filling. Afterwards you clamped down the top which included the conical shoulder that tapered into his "patented telescoping measuring tube." Lyons distributed broadsides—"Notice—one pound cans of Dr. Lyons perfect tooth powder may be had for one dollar at the manufactury at 47 Barclay Street, New York. For family use only. Not to be sold to the trade." Pamela, of course, smiled graciously from the label. If you wonder what Pamela looked like, the manufacturers suggest you examine a can of Dr. Lyons today.

By the turn of century, can companies like Taite & Sisler in Philadelphia (now the Clark Can Company) were turning out tooth powder cans at 5,000 per day, a staggering volume for those times. You would need a ten digit adding machine at least to measure the post-Lyons production of tooth powder cans. And you can credit the doctor for his shrewd judgment in package design. His original can, with "the patented telescoping measuring tube," has been modified. But progress has never had to replace it, or even give it much of a face lifting. The post-Lyons can has been sometimes round, sometimes oblong, or sometimes flat oval for space economy inside a suitcase. Time has witnessed an ingenious array of dispensing tops—covers that slide open like a camera shutter, that you spin like a telephone dial to open, or the "Tip Top," a helmet with visors that you tilt back and forth to open or close a shutter on top. Over a late round of beer, bibulous experts have seriously considered a tooth powder can that not only dispenses but cleans, operating on the principal of the sand-blast. But, the tooth powder can remains essentially the same as Lyons conceived it.

Through the first decade of the 20th century, a large proportion of the powder can business came in multitude of small orders direct from the drug retailer. He bought containers garnished with standard Victorian flower patterns, and packed them with his own dentifrice formula. But as time went on, a few dentists and retailers bought barns on the outskirts of town and went into manufacture. Advertised brand names slowly edged out the standard labels. While the census of tooth-brushers grew, the powder can business was growing in even greater proportion. Dental manufacturers began to produce enough man-made teeth to bite a sizable tip off of Pike's Peak. Nowadays, they fashioned 10,000,000 individual false teeth and about 200,000 complete sets every year. This has opened a growing market for special cleaners and adhesives which the tooth powder can has successfully invaded.

Back when the original Lyons can was still a racy novelty, three brothers in Brooklyn astonished the public with a novelty of their own. Dan, Joe, and Guy Somers were born of colorful Yankee stock. John Somers, a multi-great grandfather, was Lord Chancellor of England, staged a runaway marriage with a celebrated French beauty, and expediently crossed the Atlantic in 1605. A later ancestor blew up the USS Intrepid, not to mention himself, to save the ship's capture from the Tripoli pirates in 1803. Dan, Joe, and Guy had turned their own strain of the family genius to a more settled sort of enterprise—tin cans.

In 1869, the three brothers began to fashion metalware in Brooklyn without benefit of capital or local acquaintance. Ten years later their advancing trade suddenly zoomed into big business. Something glamorous in decorated tin boxes issued by the cartload from

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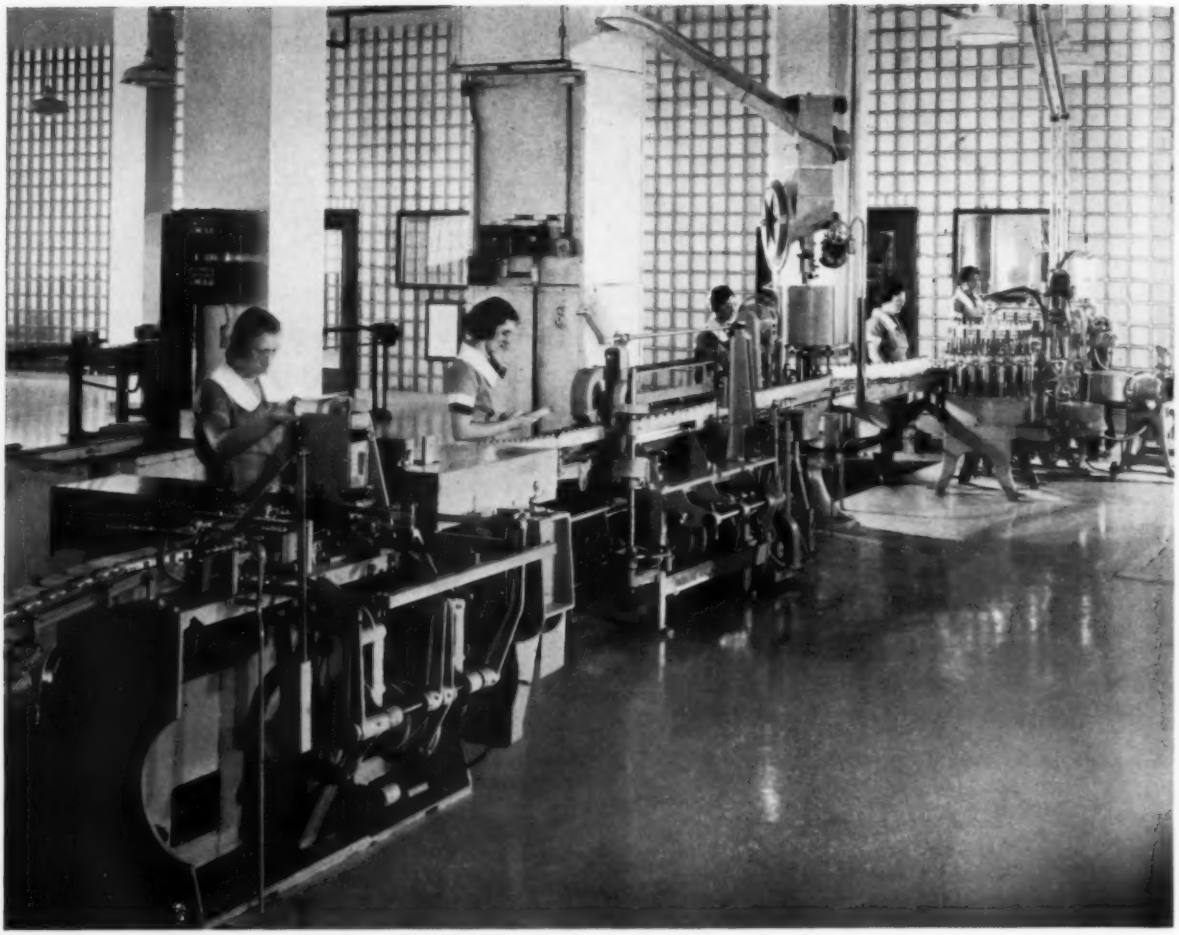

Filling and cartoning hand lotion at Campana Sales Co., Batavia, Ill.

Hand Creams and Lotions

By H. HILFER

ONE of the largest categories into which cosmetics fall are the hand preparations. The variations of hand preparations are numerous and they all appear capable of attracting and holding a large market. Preparations of this type are advertised as hand protective agents, hand softeners and hand whiteners. All of these functions may be accomplished by many different methods. The protective medium is offered generally by the introduction of a water insoluble substance which would tend to protect the hands from soapy waters, while the so-called softening agencies are in most cases a function of the final plasticity of the film after application and dehydration. Hand whitening may be caused by either the film itself, or the introduction into the cream of a white opaque pigment such as titanium dioxide, which does a splendid job in this direction.

Many of thes preparations still have their formu'atory origin in the old glycerin and rose water preparations, and this holdover is evident when it is seen how large an amount of glycerin is used in their preparation. The departure from the old glycerin and rose-water preparations seems to be in the introduction of water insoluble substances present in an emulsion form which lends a greater degree of protection from water, etc. to the preparation.

These functions are carried out to a greater or lesser

degree in the different preparations now available on the market. For the sake of easy reference, they may be divided into two large divisions each of which may be in turn divided into several classifications; hand creams and hand lotions. Lotions may be divided into the gum-soap type, and the glyceryl monostearate type, while the creams may be divided into glyceryl monostearate emulsions, stearic acid soap, and another category in which metallic stearates are used as fillers. These different classifications will be discussed in turn.

The hand lotions are emulsions which may be formulated to give many different effects. The most common type is the gum-soap emulsion, which consists of a soap as an emulsifier and a gum such as quince seed mucilage, tragacanth, karaya or others of this type as a stabilizer. In addition, they may contain stearic acid, lanolin, beeswax, triglycerides, such as the hydrogenated oils and mineral oil and other hydrocarbons, depending on the desired effect. They also contain marked amounts of a humectant, such as glycerine and in most cases about 10 per cent of ethyl alcohol. All these materials have their own special function. In the stearic acid type of lotion, the stearic acid serves two purposes; it is the agent responsible for the pearliness which develops, and it also acts as a protective agent after evaporation of the water phase and application. The lanolin and triglycerides and hydrocarbons which may be used in conjunction with stearic acid in the emulsion act as modifier to either soften or harden the dehydrated film, or to introduce a much desired unctuous effect. Lanolin in addition, has been described by some writers as a necessary agent to prevent a sudden break in the emulsion during the application period, which is evidenced by the sudden development of a "watery feel." What appears to happen when such a phenomenon occurs is a fixing of the lipoids—when the aqueous content is reduced to a certain point—to the skin with a release of the water phase to the surface—causing the "watery feel." With the introduction of lanolin or similar substances an inversion is supposed to take place in which the aqueous phase becomes the internal dispersed phase as in a water in oil emulsion—thereby overcoming this difficulty.

The soaps used vary with the desired effect. Castile soap—the soap made from olive oil—is used to a great extent, as triethanolamine stearates by themselves or in conjunction with potassium soaps or borax. Their choice is of great importance, insofar as the stability of the emulsion is concerned. Sodium stearate by itself is unsuitable since its ability to remain in proper colloidal suspension in water at low temperature is limited, however if present in small quantities in conjunction with more soluble soaps, it helps keep the emulsion stable at higher temperatures. Triethanolamine stearate seems to be a generally good all temperature emulsifier, though sodium soaps are in many instances used in conjunction with them. The type of soap used also has a bearing on the softness, or hardness, of the film—the harder sodium soaps forming harder films than do the softer triethanolamine and potassium soaps.

Glycerine and other humectants which may be used have as their primary function the property of controlling the evaporation rate of the aqueous phase, and therefore make it possible to control the rate at which the applied film will dry. It is all important in introducing a means which makes it possible for the consumer to apply the lotion and spread it conveniently without the film becoming too stiff and hard for easy spreading. It also works as a plasticizer for the remainder of the film deposited by the emulsion. Glycerin is the substance used as an example in a description of the function of the humectant, but other materials may be used as well. Propylene glycol, sorbitol and others have found a large number of users. However, they cannot be substituted percent for percent for glycerine, since their properties are different enough to cause differences in the final product.

The gums in addition to being splendid stabilizers also exert a smoothening effect, difficult to attain without their use. Quince seed mucilage seems to be the preferred choice, but karaya, gum carib, and tragacanth are also used. In addition, there have appeared on the market purified alginates and extracts of Irish moss which are also in use. The amount used in a formula depends on the effect desired and the individual characteristics of the gum. Quince seed is used in amounts from 20 per cent to 50 per cent of a 2 per cent mucilage. This is considerably less material, on a dry basis, than would first appear, since only about 20 per cent of the weight of the seed is dissolved by the water. The actual amount of quince seed actually in the emulsion ranges therefore from 0.12 per cent to 0.2 per cent. The alginates and Irish moss extracts are used in somewhat larger amounts, while karaya and tragacanth are used in about the same concentration as in the quince seed.

The gums may be used in conjunction with each other and in many cases exert a synergistic effect. However, there are many examples of incompatibility of gums towards each other, and the use of such substances together must be avoided. An easy test to determine whether or not two gums are incompatible may be made by mixing solutions of each with the other. Incompatibility is evidenced by an immediate thickening and precipitation of the gums from solution.

Ethyl alcohol has a twofold purpose. It is an excellent bacteriostatic compound, and would therefore by itself or in conjunction with more powerful inhibitors, prevent mold formation and it also lowers the freezing point of the lotion so that it may be shipped during cold weather months without freezing and causing the containers to break for this reason.

The soap concentration in lotions of this type vary from 0.5 per cent to 2.5 per cent, depending on the desired effect, stearic acid is usually about 5 per cent, glycerol ranges from 2 per cent to 7 per cent, and alcohol about 10 per cent.

A newer type of lotion is the glyceryl monostearate type, where glyceryl monostearate is used as a stabil-

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DEVELOPING C

PHOTOS FROM EUROPEAN

IN DEVELOPING Latin American trade in drugs and pharmaceuticals, as well as in cosmetics, the formation of an international company seems to be the preferred method of approach. Several of the large pharmaceutical manufacturers of this country have formed international companies with separate offices somewhat remote from the offices of the parent company or from the company which conducts the domestic business. The officials of the international company devote all their time to the foreign business and give no thought at all to the domestic business.

Some manufacturers are in the process of building plants in various Latin American countries so that these units will be part of the country in which the goods are marketed. This is the same policy that was followed by British, German, and Swiss companies which built plants right here in the United States. Squibb, for example, has a plant in Mexico, one in Cuba, and is erecting one in Argentina. These plants will naturally employ men from the countries in which they are located, and will be part of those countries. Naturally they have a certain amount of direction from this country, but the country formed in Argentina includes a certain amount of Argentine capital.

Such a program calls for the training of quite a number of men who can be sent to these various countries to represent the parent company in matters of policy, sales, manufacturing and various other phases of the business. It calls for a steady supply of plant managers who can be sent to any plant to take over, if need be, and of a steady supply of assistant managers to replace them. Naturally, any of these countries would resent the companies in their countries being completely dominated from all appearances by people from the United States. One only has to think how we resent such domination in our country to know how the citizens of the Latin American countries would feel.

The entry of a company into an international plan of this sort, therefore, calls for real long-range planning. The development of an international company is not something that can be built up overnight. On the contrary, it takes a great deal of time and a great deal of patience. Also all countries are different and must be taken up and studied one at a time. The company must stick with one country until it is fully established there before attempting to enter another country. Of course preliminary surveys can be made of other countries as this helps in deciding which country will be taken up next.

The question of personalties is extremely important in developing foreign markets under such a plan. If a man lacking in patience or tact is sent to one of these countries, he can undo much good work and can stifle the enterprise at birth. The quick removal of such a man is essential if the plan is to be successful. All countries have a great pride in their own citizens, and want to do business for the most part with ' their own kind." People of other countries are no different than we are in having a general dislike at first hand for citizens of other countries. But this is only because we do not know and understand them. Once we come to know and understand them, they become our fast and firm

OVERSEAS TRADE

friends. It is the development of this understanding on the part of the men who are sent to these countries that is all important in the development of an international plan.

When one considers the enormous business that has been built up in this country by Burroughs Wellcome, one can see how firmly a foreign company can become entrenched until it is generally thought of by the average individual as an American company. Other examples in our own industry are not far to seek, such as Lever Brothers, which is British; Hoffmann-La-Roche, which is Swiss; Schering, which was German but is now held by the Alien Property Custodian; and a long list of others including Coty International, and a long list of French and British perfume and cosmetic manufacturers.

And as an example of how far this entrenchment can go, we recall an incident told us some years ago by the president of a pharmaceutical manufacturing house in this country when he was calling on a list of doctors in England. This man was talking with a British doctor who was certain in his own mind that Parke Davis was an English house, and Burroughs Wellcome was an American house. And nothing that the American manufacturer could say would convince this doctor otherwise. The way that Parke Davis has created this impression, through design or by accident, is international trade at its zenith.

But such a condition can only be developed after many long years of great effort and of intelligent planning and execution. Doubtless, this British doctor never saw or heard of any American having anything to do with Parke Davis in his country. And likewise someone had probably told him, truthfully enough, that both Mr. Burroughs and Mr. Wellcome were originally Americans. As a matter of fact, Mr. Burroughs never became a British subject, and Sir Henry Wellcome only became a British subject during the first world war.

The development of these foreign markets in this way calls for the investment of large amounts of capital. And unless one has the capital and is willing to invest it, he had better not make the attempt to enter this trade. A manufacturer cannot expect immediate returns on his investment in entering these markets any more than he can in starting any other kind of a business or market. These things must be developed slowly and carefully with all planning aimed at the eventual goal—a profitable, self-operating company that eventually will not take very great supervision from the home office.

Parke Davis, Eli Lilly, Denver Chemical Company, Burroughs Wellcome and others are outstanding examples of companies which, throughout the years, have built up very large, substantial world businesses. The Denver Chemical Company, makers of Antiphlogistine, at one time had plants in most of the countries of the world. Therefore, their products was not subject to seasonable variations to the same extent as a product made and sold only in this country, nor was it subject to variations in the economic conditions of one or two

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BOIS DE ROSE

THE bois de rose industry got its start in 1875 when a Frenchman named M. Samain discovered that by distilling chips of the rosewood tree he could extract a perfume oil. Up to that time, rosewood, a type of mahogany, had been imported into France from French Guiana mainly for the manufacture of furniture, and it was not until Samain's discovery, that bois de rose or rosewood oil came into existance.

Distillation continued in France until the first part of this century, when on the spot distillation was started in French Guiana. But as time passed and the sources in the French Colony were used up, the rosewood tracts became more and more inaccessible driving up the cost of bois de rose.

Along about 1926, Brazil appeared on the market as a producer of bois de rose, and it came to the attention of importers of this essential oil that the northern states of Brazil had large sources of rosewood trees. From that time, bois de rose became an important article of export in Brazil, surpassing French Guiana. It is reported that there are but two distillers of the oil now in the French colony, whereas there are some forty-seven in Brazil, making the latter far and away the most important source and distiller of the oil.

The source of Brazilian rosewood is in the states of Amazonas and Para, some thousand miles from the mouth of the Amazon River. But even with this great artery of transportation, most of the trees are located

in some places one hundred miles away from the river, and due to the nature of the territory which is covered with tropical vegetation the only way to bring the rosewood logs from the area where they are found to the Amazon is via the small creeks and streams that feed the river. The great difficulty regarding transportation of the logs, is that for a greater part of the year these creeks are dry, and it is only during the flood season from April to July that there is enough water in these creeks to make transportation of the rosewood logs possible. A rise in the river level of fifty feet is necessary to ensure reaching the sites where the trees are located and getting the logs down to the Amazon, where they then can be loaded onto larger boats or barges. This year, the rise of the river amounted to a mere thirty-five feet, fifteen feet less than needed. Consequently not as much wood was gathered as in 1946, when the flood stage of the river was much higher.

The rosewood trees grow in a particular type of clay soil. A belt of this soil, and consequently a belt of rosewood trees can be found along the area in Northern Brazil up and away from the Amazon. Naturally, the trees that are easy to reach are cut first. And the longer the industry exists, the more inaccessible do rosewood trees become. This is one reason why the cost of the oil is becoming higher. General inflation has come about in Brazil as a result of the war to the extent of 300 per cent of prewar levels making still another factor for the higher cost of bois de rose. During the war, Brazil became one of our sources of rubber, for which we paid 60 cents a pound, against a New York price today of only 14 cents per pound. As a result of this rubber gathering, chicle gathering, and other undertakings for which small concern was given to price, wages in that region increased some 800 per cent, and the price of rosewood advanced 1,700 per cent above the price prevailing ten years ago in 1937.

Distillers of bois de rose in Brazil do not gather their own wood. The wood is collected for the distillers by numerous cutters. Each distiller will negotiate with a contractor for varying amounts of wood at a price agreed upon when the contracts are made. At this time, the distillers advance to the contractors fifty per cent of the value of the wood for which they have contracted. When delivery of the wood is made the balance of the value of the wood is paid. The contractors set forth in expeditions in February and start immediately to cut wood. But not until the flood period in April can any of this wood be transported through the small creeks to the Amazon. The cutting and the transportation continues until the end of the flood season in July.

Before distillers are able to contract for wood, they must be able to judge how much oil can be sold in the world markets and what the prices will be. This an undertaking that calls for keen judgment, and it is not without great financial risk. For if, after the wood is gathered and paid for, and the oil is distilled, the markets will not absorb it at the prices which must be

(*Continued on page 263*)

Scene along the Amazon, showing the way that logs are loaded on river steamers. Below, eroded bank shows height river reaches during flood stage as compared with dry season. Pictures courtesy Moore McCormack Lines.

The Anticoagulants---Heparin and Dicumarol

By M. A. LESSER

THROUGHOUT medical history physicians have sought and still seek methods for hastening clotting to control bleeding. It is only within recent times that they have turned their attention to methods for reversing this process as a means of preventing thrombosis and embolism in the circulatory system. The first major steps in this direction have become possible through the use of the anticoagulant drugs, heparin and dicumarol.

Thrombosis is defined as the formation of a plug in a vessel; the plug being found at the point of its formation. Embolism is an obstruction of a blood vessel by a clot or plug. Put another way, a thrombus may be described as a blood clot that stays put. An embolus is a clot or part of a clot that has broken away from its point of formation and travels in the blood stream to cause damage in some other part of the circulatory system. There are a number of factors that may enter into thrombus formation. According to Meyer[1] the starting point of a thrombus is a small mass of blood platelets, but earlier damage to the vessel walls, stasis of the blood, or modification of the coagulability of the blood may be important. The common factors involved may be: trauma, infection, chemicals, stasis (local or cardiac), thrombophilia, and drugs like digitalis, aminophyllin, snake venoms and others.

Thrombus formation and the embolism which so often follows it are frequent causes of disability and death. Thrombosis occurring any place in the circulatory system presents a serious threat to the life of the tissues supplied or drained by the vessels in which the clot or plug is formed. If it occurs in a critical area, it may result in death.[2] If an embolus, the escaped fragment of a clot lodges in the heart, death usually follows. If the embolus strikes an artery leading to the brain, it causes apoplexy. When emboli succeeds in blocking one of the major blood vessels of the lungs, the pulmonary embolism shuts off the oxygen supply; often with fatal consequences.

Venous thrombosis and embolism, or thromboembolism, is beyond doubt one of the most important and most dreaded complications of surgery, childbirth, or illness requiring prolonged bed rest. It is found in 11.5 per cent of all those who die within a month of a surgical procedure and in nearly half of them it is the main cause of death. It kills about 5 per cent of those who recover temporarily from an attack of coronary thrombosis. Moreover, it may strike down apparently healthy individuals without warning.[3]

Hope for the prevention of such injuries and fatalities lies in the use of anticoagulant drugs. Jorpes,[4] a leader in anticoagulant research, has remarked that there is no field of medicine in which heparin and Dicumarol could not be used in saving lives, decreasing morbidity and eliminating long-lasting disabilities due to thromboembolism.

The potentialities, if not the actualities of coagulation control have been indicated by Allen[5] who obobserved that, "the importance of diseases of blood vessels would be greatly lessened if vascular disease did not provoke thrombosis and if blood would not clot inside living blood vessels. Phlebitis would be a benign disease if it did not cause venous thrombosis. Arteriosclerosis would have lesser importance if it did not cause coronary and cerebral thrombosis. The two chronic occlusive arterial diseases of the extremities, arteriosclerosis obliterans and thrombo-angiitis obliterans, would not cause any great impairment of the arterial circulation to the extremities if thrombosis were not a part of them. The curse of cardiac irregularities, coronary thrombosis and congestive heart failure would be substantially smaller if mural thrombosis and embolism were not associated with them. There would be no pulmonary embolism or phlebothrombosis if blood would not clot inside blood vessels; the gangrene of trench foot and immersion foot would be avoided in many instances."

Noting that the use of anticoagulants is a step in the prevention of intravascular thrombosis, Allen[5] is of the opinion that hemorrhage causes far fewer deaths than intravascular thrombosis. Therefore, the problem of intravascular thrombosis is more important than the problem of hemorrhage. Allan also stresses that there are many misconceptions concerning this condition. Fatal pulmonary embolism is thought to be almost solely the lot of those who have had major surgical operations. However, as great a proportion of patients who are sick with "medical" conditions die

from pulmonary embolism as those who have had operations. In lobar pneumonia, for example, thromboembolism occurs in about 2 per cent of cases.

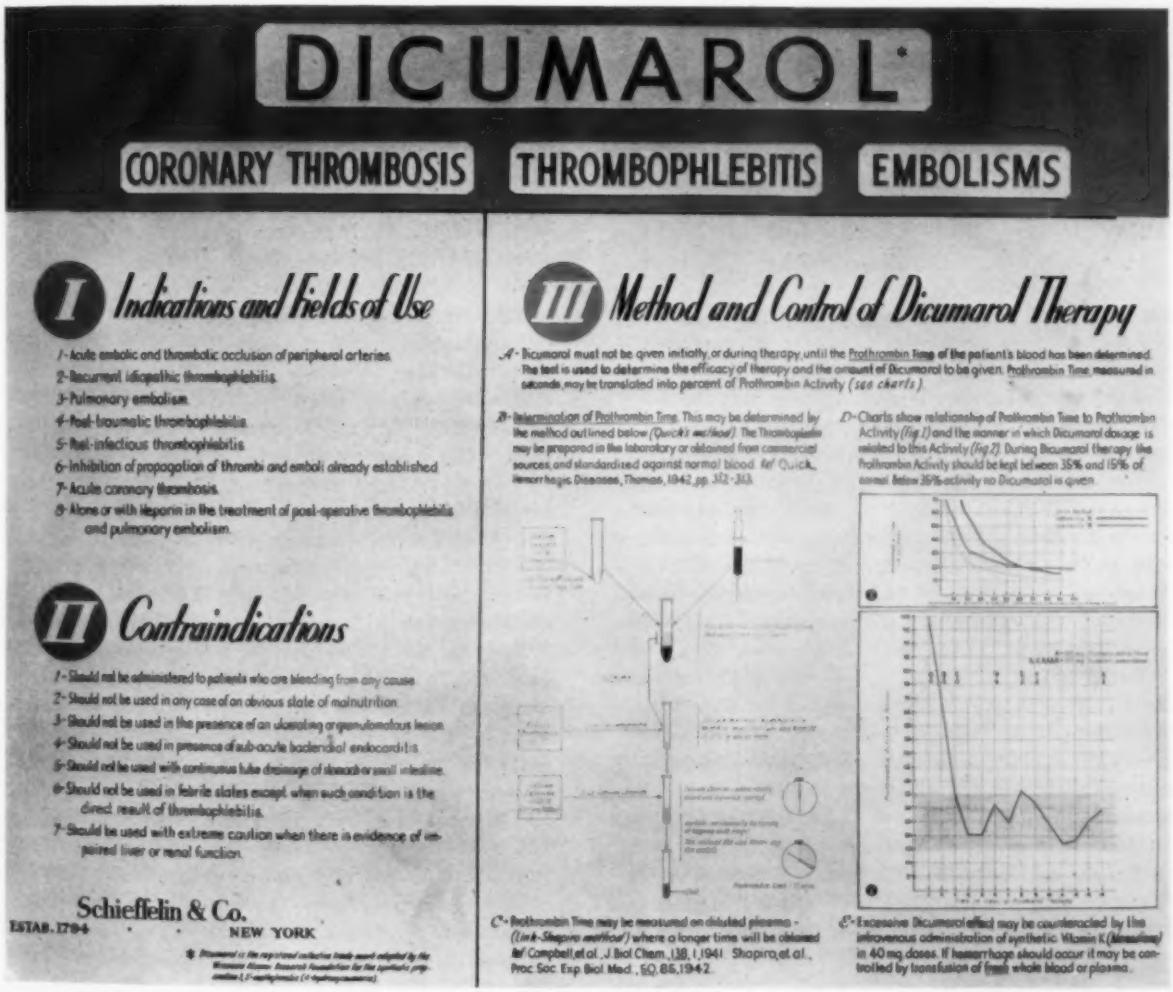
How he and his associates at the Mayo Clinic have used the coagulants to solve part of the problem of thromboembolism is shown in Allen's report. Their studies on 1,686 surgical cases indicates that the use of anticoagulant treatment is effective in preventing venous thrombosis or in avoiding its extension once it has occurred. On the basis of previous experience on patients not given anticoagulant therapy it is estimated that the lives of 73 patients have been saved by preventing fatal pulmonary embolism by the use of Dicumarol. By such therapy an additional 211 patients were spared the frightening experience of venous thrombosis and pulmonary embolism.

Similar results were reported by Bauer[6] following the use of heparin. He stated that, in comparison with patients treated in the old, conservative way, heparin treatment resulted in depressing the mortality rate to less than one-tenth. It also reduces the time of staying in bed from the previously customary forty days to about five days.

Others have found that the use of heparin and Dicumarol, alone or in combination, yields similar outstanding results. Heparin is much the older of the two. Some of the early history and uses of this anticoagulant were discussed in *Drug and Cosmetic Industry*[7] in 1940. A brief review to bring things up-to-date is therefore in order.

Heparin was first isolated in 1916 by McLean,[8] but about twenty years passed before the drug was obtained in a pure, crystalline form that permitted its use in human beings.[9] Chemically speaking, heparin is a mucoitin polysulfuric acid. It is apparently a normal constituent of the circulating blood and is present in many tissues of the body, particularly liver, lung and muscle. There is considerable evidence that heparin is the normal, circulating anticoagulant and that it assists in, or is necessary to, the maintenance of blood in its fluid state.

The mechanism by which heparin prevents the clot-


DICUMAROL*
CORONARY THROMBOSIS
THROMBOPHLEBITIS
EMBOLISMS
I Indications and Fields of Use
1- Acute embolic and thrombotic occlusion of peripheral arteries.
2- Recurrent idiopathic thrombophlebitis.
3- Pulmonary embolism.
4- Post-traumatic thrombophlebitis.
5- Post-infectious thrombophlebitis.
6- Inhibition of propagation of thrombi and emboli already established.
7- Acute coronary thrombosis.
8- Alone or with Heparin in the treatment of post-operative thrombophlebitis and pulmonary embolism.
II Contraindications
1- Should not be administered to patients who are bleeding from any cause.
2- Should not be used in any case of an obvious state of malnutrition.
3- Should not be used in the presence of an ulcerating or granulomatous lesion.
4- Should not be used in presence of sub-acute bacterial endocarditis.
5- Should not be used with continuous tube drainage of stomach or small intestine.
6- Should not be used in febrile states except when such condition is the direct result of thrombophlebitis.
7- Should be used with extreme caution when there is evidence of impaired liver or renal function.
Schieffelin & Co.
ESTAB. 1794 NEW YORK
III Method and Control of Dicumarol Therapy
A- Dicumarol must not be given initially, or during therapy, until the Prothrombin Time of the patient's blood has been determined. The test is used to determine the efficacy of therapy and the amount of Dicumarol to be given. Prothrombin Time, measured in seconds, may be translated into percent of Prothrombin Activity (see charts).
B- Determination of Prothrombin Time. This may be determined by the method outlined below (Quick's method). The Thromboplastin may be prepared in the laboratory or obtained from commercial sources and standardized against normal blood. Ref. Quick, Hemorrhagic Diseases, Thomas, 1942, pp. 312-313.
C- Prothrombin Time may be measured on diluted plasma - (Link-Shapiro method) where a longer time will be obtained. Ref. Campbell et al., J. Biol. Chem., 138, 1, 1941. Shapiro et al., Proc. Soc. Exp. Biol. Med., 50, 86, 1942.
D- Charts show relationship of Prothrombin Time to Prothrombin Activity (fig. 1) and the manner in which Dicumarol dosage is related to this Activity (fig. 2). During Dicumarol therapy the Prothrombin Activity should be kept between 35% and 15% of normal. Below 35% activity no Dicumarol is given.
E- Excessive Dicumarol effect may be counteracted by the intravenous administration of synthetic Vitamin K (Menadione) in 40 mg. doses. If hemorrhage should occur it may be controlled by transfusion of fresh whole blood or plasma.

An educational exhibit on Dicumarol being displayed by Schieffelin & Co. at the Third Annual Exhibit of the New York Academy of Medicine during 1947.

Barber surgeon performing blood-letting, about 1820.

ing of blood is not completely known, but it seems to depend on the fact that the substance prevents the conversion of prothrombin to thrombin and inhibits platelet agglutination. When injected into the body, the coagulation time of the blood is prolonged in proportion to the amount of heparin used. Following its introduction into the circulation, heparin is rapidly destroyed or inactivated in the body and only traces are detectable in the urine. The effect of heparin is noted immediately, and disappears in from one to three hours after cessation of treatment, even when such therapy has been continued over a period of many days.[10]

Being a natural product, generally obtained from beef liver, heparin must be assayed and standardized.[1] Various methods are used and improvements in assay are frequently suggested.[11] With the pure heparin salts now available, the dosage of heparin is usually expressed in milligrams.

Heparin is not effective by mouth and must be injected to act as an anticoagulant. Because of the transient action of single doses, repeated intravenous injections of heparin solutions or continued venoclysis (intravenous drip) are necessary when it is desired to obtain an anticoagulant effect extending over days or weeks. Such effects are required in the treatment of bacterial endocarditis, phlebothrombosis, thrombophlebitis, postoperative pulmonary embolism, frostbite and repair of vascular injury.[12]

There is no fixed dosage for heparin and the amount administered must be carefully regulated for each individual and for the same individual at different times. The only safe and effective method of gauging the dosage is to determine the clotting or coagulation time at three or four hour intervals during the course of treatment and to adjust the dosage accordingly.

With the modern purified crystalline heparin salts, toxic effects are rarely encountered, except bleeding resulting from undue prolongation of the clotting time.[10]

The purpose of heparin treatment is to prolong the coagulation to about three times its normal figure for the individual.[13] Marked prolongation of the clotting time carries the definite danger of hemorrhage. When this danger appears it is usually sufficient to stop medication, because the heparin effect disappears in two or three hours. Where a prompt action is desired, protamine is used to counteract the effect of heparin.[8]

Because repeated intravenous injections of heparin or continued venoclysis is cumbersome and expensive, attention has been directed to methods for overcoming these disadvantages. So-called "depot" injections, given subcutaneous, have been tried in order to obviate the need for frequent injections and to obtain a slow and equable release of heparin. Bryson and Code[14] have experimented with a suspension of powdered heparin in a beeswax-sesame oil mixture and have obtained encouraging results. However, wide practical experience in the use of another medium, the Pitkin menstruum, has been reported by Loewe and his associates[15, 16] and by Evans and Boller.[17] By incorporating heparin in this menstruum, which consists of gelatin, dextrose, glacial acetic acid, and water, it is possible to obtain a consistent, retarded and equal release of the anticoagulant from the vehicle into the tissues. Absorption of the heparin from its subcutaneous deposit may be regulated and retarded further by adding the vasoconstructors, ephedrine and epinehrine.

Heparin, when dissolved in this medium, need not be given oftener than every two or three days to insure adequate anticoagulation. Loewe and his co-workers have used this medium in an appreciable number of cases of bacterial endocarditis, phlebothrombosis, thrombophlebitis and frostbite without encountering and untoward reactions due to the heparin. Evans and Boller used this type of heparin injection in conjunction with Dicumarol therapy. They found that one injection of heparin in this medium prolongs the coagulation time for the two or three days which are usually necessary for Dicumarol to become effective. They stated that the possible side effects from this subcutaneous injection are "trivial." Bancroft[18] has also noted that the patient has no ill effects from the treat-

ment save for the pain in the injected area. To those who have had to give heparin constantly for five to ten days, this method is considered a great improvement.

When it is desirable to discontinue the heparin activity as produced by this subcutaneous method, all that is usually required is to apply a tourniquet above, or an ice bag on, the site of the injection, with or without small, whole blood transfusions.[17]

The advent of Dicumarol provided a most important forward step in anticoagulant treatment. In contrast to heparin, which is quite expensive, Dicumarol is very cheap. Moreover, the newer drug is effective by mouth.

Dicumarol is the name adopted by the Wisconsin Alumni Research Foundation for the anticoagulant compound, 3, 3′-methylene-bis-(4-hydroxycoumarin). The story of this compound begins with the discovery that spoiled sweet clover hay was responsible for a fatal hemorrhagic disease of cattle. In 1941, Link and his associates[19] isolated the compound, identified it as the factor responsible for the hemorrhagic action, and synthesized it. Shortly after, two groups of investigators,[20, 21] began clinical studies on Dicumarol to determine its usefulness in therapeutics as an agent for retarding intravascular clotting. Their findings indicated that, when carefully administered and with regular observations of prothrombin time, Dicumarol was useful for such purposes. They also suggested that the new drug could be used as an adjunct to, or as a replacement for, heparin.

Since then, says Wright,[23] numerous clinical reports have appeared, most of which point to the conclusion that Dicumarol is a very valuable substance when used in the prevention of venous thrombosis, thrombophlebitis, and emboli. According to this authority, Dicumarol impairs or prevents the coagulation of the blood by reducing the amount of prothrombin in the circulating blood. It is fairly certain, though not proved conclusively, that the site of prothrombin synthesis is in the liver and that Dicumarol inhibits prothrombin synthesis. In this way it interferes with the normal clotting mechanism and retards coagulation.

Like heparin, the dosage of Dicumarol must be individualized. It has been stressed[22] that the only reliable method of ascertaining the proper dose of Dicumarol is by frequent plasma prothrombin determinations. The aim of therapy should be the maintenance of prothrombin time at a level varying between 35 and 60 seconds, as compared with the normal of about 20 seconds.[10] Following the oral administration of therapeutic doses of Dicumarol, there is a latent period of twenty-four to forty-eight hours during which the drug produces no demonstrable effect on the prothrombin time. Then there is a gradual increase in the prothrombin time, which reaches a maximum

PHOTOS FROM BETTMANN ARCHIVE

Doctor preparing patient for blood-letting.

in three to five days and gradually tapers off during the next two to four days until return to normal.[1]

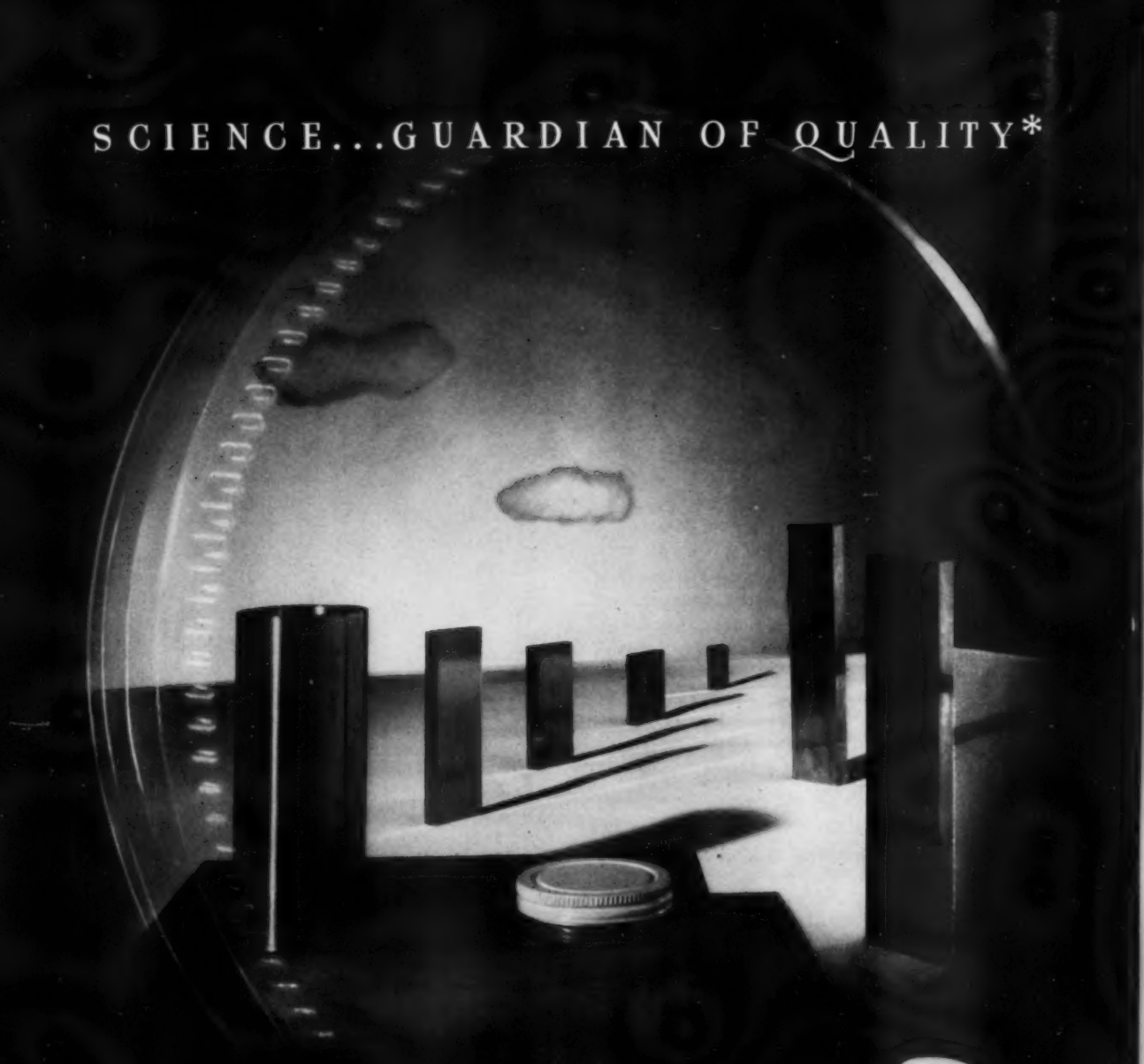
Obviously this prolonged effect may be either advantageous or disadvantageous, according to the circumstances. Daily prothrombin time determinations, at least for the first week, and frequently thereafter, are absolutely essential if hemorrhagic accidents are to be avoided.[1] As remarked by Doughtry,[24] untoward effects occur but they do not present a major problem nor do they prohibit the use of Dicumarol when definitely indicated. Practically the only untoward reaction of any importance is that of hemorrhage. Bleeding may be from the gums, nose, urinary tract, into subcutaneous tissue from slight trauma but move often into the surgical wound.

With the appearance of impending danger, the hemorrhagic manifestations may be checked by the administration of large doses of synthetic vitamin K, transfusions of whole blood, or both.[22] When bleeding stops, treatment with Dicumarol may be resumed cautiously if the need for anticoagulants still exists.[6]

Since heparin acts within a few minutes after injection, while Dicumarol has a latent period of twenty-four to forty-eight hours, it is obvious that the two drugs supplement each other in cases where prompt but prolonged anticoagulant treatment is required.

(*Continued on page 264*)

SCIENCE...GUARDIAN OF QUALITY*



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Metal Closures

...A never ending effort to safeguard quality through use of modern developments of science.

...A never changing desire to lend industry a helping hand in solving its closure problems.

...Is it strange that a distinguished and growing clientele uses millions of our closures each year?

Bernardin Bottle Cap Company, Evansville, Ind.

*Pictured—Gage Blocks, accurate to a millionth of an inch, supply the basic measuring precision back of Bernardin craftsmanship.

Since 1881—America's First Manufacturer of Metal Closures

PACKAGING and SELLING

POOR RETAILING

ONE of the least enviable jobs in business today is that of the retail buyer. He is being damned by store management for not keeping up volume, and yet store management refuses to give him the tools to work with, and he is also being heartily damned by manufacturers, whose goods are in demand, for running out of stock on products the customers want, and for refusing to order these products.

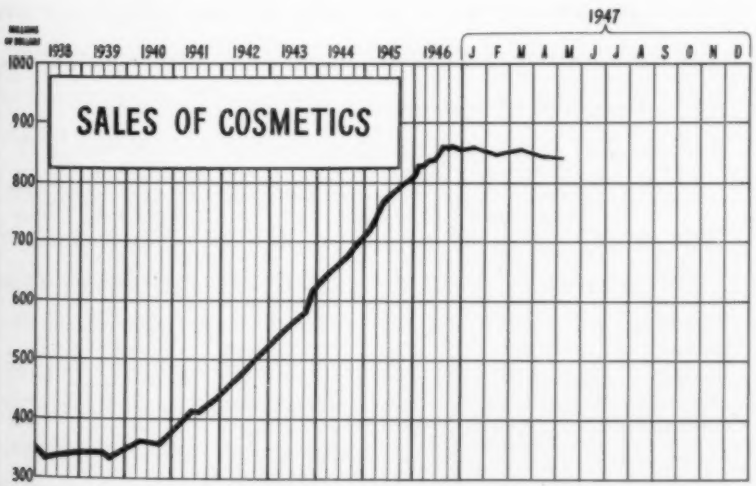
A particular hot spot is the demonstrator in his department. Many manufacturers are complaining that the buyer will not reorder many things that the demonstrator is being asked for, and that for periods of three weeks to a month, the demonstrator may not have in stock some of their best items. This has pushed the cost of demonstration up considerably and many manufacturers are screaming bloody murder at the buyer and the store when the cost of demonstration soars over 20 per cent, because the store won't carry the stock which the demonstrator can readily sell. The poor buyer is certainly caught in the middle.

Orders originating from the bank, from the controllers office, or from top management to ruthlessly cut inventories, regardless of products in demand, until the also-rans have been disposed of, land in the buyer's lap as the last place on which responsibility rests.

This is one reason why selective distribution in the best stores is taking it on the chin today more than mass distribution. These best stores, who are the real salesmen of the retail field, have not been selling the goods that the customer really wants, but they have been selling the junk which they could not return to the manufacturer. In addition to that they have been cutting their stock to a point where the volume of last year could not be maintained, even if the consumer were willing, because the choice in selection can't be found in the department.

One of the best informed salesmanagers in the trade has been doing a good job lately with the top store management. He has been telling management that they cannot do the volume of 1946 with the inventory of 1936, and that the whole growth of the industry, that is the doubling of volume in their store during these 10 years, is based upon the development of perfumes and cosmetics as part of the fashion industry, that the range and selection of such things as colors is what has made the real growth of the industry. He has been telling them emphatically that they will not hold the post-war volume that the industry should have by thinking in terms of what they did in the pre-war era.

There certainly has been a drop in consumer buying of cosmetics, particularly of class prestige cosmetics. The industry is coming more and more to the conclusion that a large part of the drop in manufacturers' sales has been due not to the consumer, but to a falling down of the retail merchant to meet his obligations as a salesman.



Retail sales of cosmetics for the twelve months ended with May 1947 amounted to $845,170,000. This compares with $845,771,000 for the twelve months ended with April 1947 and with $835,405,000 for the twelve months ended with May 1946.

Add Returned Goods

Returned goods are just as tough a problem to dress manufacturers as they are to the cosmetic industry.

In the annual meeting of the National Dress Manufacturers Association, Isidor A. Agree, executive director, warned that "unscrupulous trade practices are now making their reappearance and were the principle factor in incalculable losses and high mortality rate in the industry during the past."

Mr. Agree said that indiscriminate cancellations of orders and injustifiable returns will not be tolerated in the industry, and that retailers must be told that they will be checked and rated for their trade dealings as closely as they are for their financial responsibility.

Negotiations between the apparel trade associations and the National Retail Dry Goods Association are expected to do a great deal to rectify some of these conditions.

Pleasant Working Conditions

Johnson & Johnson has just completed one of America's most beautiful factories, at Cranford, New Jersey to manufacture the baby products of this company.

This $1,250,000 factory is built of tile, trimmed with terra-cotta and aluminum, and has a continuous strip of double glazed windows, which permit air conditioning and cuts down glare. The interior of the factory is a model of efficient construction, but at the same time great emphasis has been placed upon employee welfare. A color expert worked out a really beautiful restrained color plan to minimize fatigue and eye strain. The entire plant is air conditioned, acoustical ceilings eliminate noise, and attractive lounges, showers and a cafeteria give a very pleasant surrounding for meals and rest periods.

At a press reception, the editor of one of the prominent women's magazines remarked that there were very few people in this country who had anything like this pleasant environment in their home life, and factories of this sort where people spent over half of their waking time, would be bound to have a profound effect on American demand for improved conditions in home environment.

Add Men's Market

Some interesting things are happening in the men's field, despite the general air of gloom which still hangs over this branch of the industry. Father's Day provided an unusually spoty market with business excellent in some places and way down in others. Reports say that the product most in demand for Father's Day was the electric razor.

This brings up the interesting question of what products the cosmetic industry can develop for this huge and growing market of the electric razor, reported to exceed now 5,000,000 men.

Last month J. B. Williams introduced an electric shave conditioner, which we hear is finding great acceptance. One of the prestige men's line has been educating salesgirls to sell a combination of cologne and talc as a facial preparation preceding use of the electric razor, and this is reported to be going over very well.

Any one who has used the electric razor for any time knows that during the warmer months, and certainly through the south, when the face is covered with moisture, that use of the electric razor becomes a real chore. The razor seems to skid over the hairs, shaving takes two to three times as long, and the friction leaves the skin in an irritated condition. The industry certainly should do much more work along the line of products of this sort because the market, especially in the department store field, is ready and waiting. We also hear that one of the men's lines, in which an after-shave cream was introduced, is finding this one of the best repeat numbers.

We would like to reiterate here our belief that a small but worthwhile market for a men's treatment line, that is the addition of a cleansing cream and a lubricating cream, is ready and waiting.

Retail thinking on men's lines has almost universally turned to three price classifications as a basis for their men's department, each classification to be represented by not more than two or three good lines.

Now we hear that two men's lines, which were well entrenched in the top price classification, have gotten uneasy over their volume, and are each bringing out new dollar packages.

Some retailers are now wondering generally whether they can, or should, continue this high priced prestige line in their department, while a dollar number, under the same trade name, is being widely distributed in drug stores.

Jasmin from Strange Places—Not Far Off Ones

Of all the materials used by the perfumer, the oil extract from the jasmine flower is the aristocrat of essential materials. This flower oil, which comes primarily from Grasse, France and to some extent from Italy, Sicily, Egypt and a trickle from Palestine, has been one of the desperately short materials during the war, and as a consequence prices reached some rather dizzy heights, climbing in some cases to over $3,000 a pound.

Now rather abruptly almost everyone appears to have jasmine for sale, and prices are daily recognizing this condition. There is an interesting little side light to the quantity of jasmine available which goes beyond the normal economic factors that are bringing so many raw materials into surplus supply and declining price.

As one very large perfumer told us, he is being offered excellent jasmine from outside the trade, and apparently from a number of business men who belong to what Wall Street called in 1946 the "7th Ave. Crowd." The reason—early in the war quite a bit of jasmine was purchased outside of the trade as an inflation hedge, has quietly been kept under cover, and is now coming out.

Plastic Bottle

The plastic bottle has at last arrived in the cosmetic business, is getting a great play from the stores, is selling in volume, and is being drooled over by the beauty editors.

Whether it will have a big but short lived play as a gadget, or make a place for itself as a new cosmetic container, remains to be seen.

This new bottle is being introduced by Herman Brooks through his company, De Markoff. It is a flexible, polyethelene, 7 ounce, round bottle, which has a milky white appearance when empty,

Department of Commerce Monthly Retail Trade Report

Retail sales of all kinds in drug and department stores showing the increase for the month of May 1947 as compared with the same period in 1946.

	Department Store	*Drug Store*		*Department Store*	*Drug Store*
Atlanta	+8	+19	Memphis	X	X
Baltimore	+11	−4	Milwaukee	+12	+4
Birmingham	+13	+3	Newark	+5	+4
Boston	+19	+3	New Orleans	+8	X
Chicago	+14	+8	New York	+8	+2
Cincinnati	+20	−1	Philadelphia	+14	+3
Cleveland	+13	+1	Pittsburgh	+17	+4
Dallas	+17	−1	Providence	+12	−2
Denver	+9	+8	Saint Louis	+17	+2
Detroit	+10	+13	San Francisco	−1	+20
Indianapolis	+9	+4	Washington	+6	−4

set for sales WITH Lustron A MONSANTO PLASTIC

Molded by Atlantic Plastics, Flushing, N. Y., for W. B. Associates, New York City.

A convenient, tip-proof base of colorful Lustron is the outstanding feature of this fast-selling Softol manicure set. Besides offering top sales appeal and real usefulness to the consumer, this base serves as an attention-getting display set-up on store counters . . . acts as a practical holder that protects against breakage while the set is packed in the box.

Like many another bright packaging idea, Lustron's uniquely combined qualities make this application profitably possible. You might do well to consider what this versatile Monsanto polystyrene can do for your product. Check the list of Lustron properties. Get full Lustron information and packaging counsel from: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield 2, Mass. Lustron: Reg. U. S. Pat. Off.

MONSANTO CHEMICALS — PLASTICS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

LUSTRON PROPERTIES ESPECIALLY IMPORTANT IN PACKAGING:
Full rainbow range of sales-making colors — clear, transparent and opaque.
Light weight.
Dimensional stability.
Resistance to chemicals and moisture.
Low cost.
Adaptability to fast, economical, mass production methods.
Freedom from taste and odor.

For powders and pills, capsules and tablets

Anchorglass Wide Mouth Rounds

POWDERS and pills, capsules and tablets are subject to deterioration by moisture. Accordingly, they must be protected from atmospheric moisture and kept dry at all times. That is one reason they should be packaged in glass.

Then, too, powders and pills, capsules and tablets are oftentimes used over a long period of time. And that is another reason why they should be packaged in glass—for the glass package provides easy, quick access to the contents and can be resealed to protect the remainder indefinitely.

Anchorglass Wide Mouth Round Bottles are the ideal containers for powders and pills, capsules and tablets. In fact they were designed especially for them. And to most completely satisfy your needs, they're available in amber, in 26 different capacities ranging from 3 cc's to 4000 cc's.

- **Designed especially for powders and pills, tablets and capsules**
- **Protect contents from atmospheric moisture**
- **Have no seams to rust or corrode**
- **Provide easy, quick access to contents**
- **Chemically inert**
- **Available in 26 sizes**

Anchor
CONTAINERS and CAPS

PRODUCTS OF
ANCHOR HOCKING GLASS CORPORATION
LANCASTER, OHIO

Tune in "Crime Photographer" every Thursday evening, entire Coast-to-Coast Network, CBS.

but a frosty white appearance when filled with talc. The first product introduced is talc. The closure with a small, single orifice allows the talc to be sprayed in a fine powdery mist when the flexible bottle is pressed with the thumb and fingers. The descriptive term, "talcamizer" has been given to this first product.

It was introduced with large cooperative newspaper advertising and mechanical spraying of the fragrant fern cologne, which is the odor used, at Lord & Taylor, rapidly followed by Altman, and within a week in major cities.

Early reports are large sales and great consumer interest.

Promising Packaging

French perfume companies are still sending representatives over here looking for distributors, although there has been a very decided drop in the number of visitors during the last few months.

Recent arrivals state that with the exception of some kinds of fancy box paper, all other packaging materials are now freely available, and that this country will soon see a bright array of postwar packaging arriving from Paris.

In our own country, under the very active stimulus that is needed for new promotions, plus the much better availability of all kinds of packaging materials, the perfume and cosmetic business in this country will certainly be stepping up in packaging presentations.

This Christmas season should see a number of interesting new packages, and certainly 1948 will burst into a blaze of packaging glory.

Roadwork

Pete Leube who has just returned from a three weeks cross country trip for Mark Cross, tells us that for the first time in twenty years he really is sorry for the fellow who has to hit the road.

In spite of reservations most of the way, he claims that he lost 10 pounds on this trip, and certainly the way his belt hangs, anyone can believe it. He also tells us that salesmanagers and comptrollers will have to change their standards for expense accounts.

Always with an eye on business, Pete says that after noticing the price of oranges in California, he figured that the mark-up on a glass of orange juice in his Los Angeles' hotel had a good solid edge on anything in the entire perfume field.

Cosmetic Sales Outlook for '47-'48

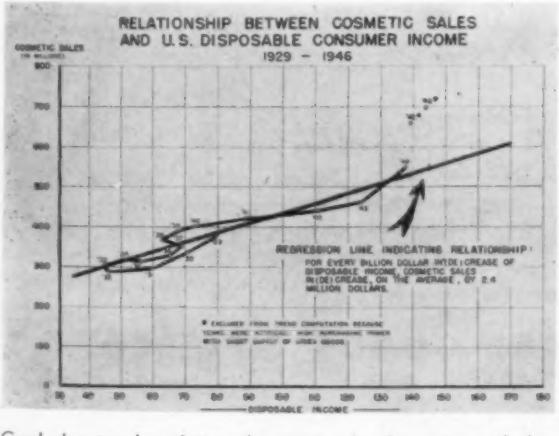
According to a cosmetic survey conducted by the research department of McCann-Erickson, Inc., indications are that retailers' inventories reached the normal level the spring of this year, and henceforth manufacturers' sales to the trade for the period from 1947 to 1948 will resume a more normal level.

McCann-Erickson made the survey to find out the reason for the decline in purchases from manufacturers by the retail trade during the first four months of this year. The findings of the study established the fact that the primary causes were extremely high inventories coupled with a tendency of the retailers to reduce them to their normal level.

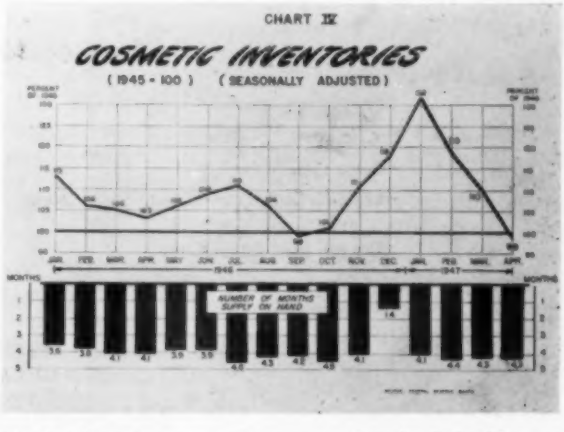
Despite this decline, the survey indicated from figures based on the toilet goods and drug index for department stores as developed by the Federal Reserve Board, cosmetic sales on the average for the first four months in 1947 ran only four percent below 1946. But that the January 1947 inventories were 32 per cent above those in January 1945 (see right hand chart). Thus the rapid decline of inventories during the first four months of 1947 explains the descrepancy between retail sales and shipments from manufacturers. Since inventories reached a normal level around April 1947, manufacturer sales to the trade are now more normal.

The chart on the left indicates the relationship between the disposable income of the U. S. consumer and cosmetic sales. The shaded trend line is computed for the years 1929 through 1944, points to a perpetual increase each year for cosmetic sales of 3.3. million dollars per year. This is probably due to the general inclusion of younger age brackets and of male customers into the cosmetic market. The years 1945 and 1946 are omitted from the chart since they are considered abnormal sales years for cosmetics, since they were the years of the highest purchasing power with a then rather unbalanced supply of consumer goods, hence cosmetic sales in these years were abnormally high. The chart indicates that for every ten billion increase or decrease of disposable income, cosmetic sales increase or decrease, on the average of 24 million dollars.

With the resumption of this co-called normal trend the analysis as given by the survey predicts that cosmetics sales for 1947 and 1948 will run approximately 10 per cent lower than the peak volumes of 1945 and 1946 but still higher than any other year.


RELATIONSHIP BETWEEN COSMETIC SALES
AND U.S. DISPOSABLE CONSUMER INCOME
1929 - 1946
REGRESSION LINE INDICATING RELATIONSHIP:
FOR EVERY BILLION DOLLAR INDICREASE OF
DISPOSABLE INCOME, COSMETIC SALES
INDICREASE, ON THE AVERAGE, BY 24
MILLION DOLLARS.
DISPOSABLE INCOME

Graph showing the relation of cosmetic sales that varies with the market about $24 million for every $10 billion increase or decrease of disposable consumer income. The shaded line shows how each year cosmetic sales have increased $3.3 million.



The chart above shows cosmetic inventories, based on Federal Reserve Board figures. It seems to indicate that retailers have been cautious in buying, with the result that inventories for April 1947 were below the average in 1945.

BRIDGEPORT

Cosmetic Metal Containers

Caps and Closures

Perfume and cosmetic manufacturers for more than a quarter of a century have recognized the precision craftsmanship of Bridgeport Metal Cosmetic Containers.

The consistent uniformity and beauty of our products has resulted in many leading manufacturers remaining as consistent users of Bridgeport Metal Containers.

When you are again planning a product that requires an original design be sure to examine the fine precision and decorative beauty of Bridgeport Products.

Bridgeport Produces

- Vanities
- Jar Caps
- Bottle Caps
- Lipstick Containers—Swivel, Slide, Automatic
- Dry and Paste Rouge Cases
- Powder Boxes
- Perfume Vial Cases and Caps
- Lip Brushes
- Drawn Talc Containers
- Miscellaneous Make-up Cases and Other Metal Specialties

THE BRIDGEPORT METAL GOODS MFG. CO.

Established in 1909

BRIDGEPORT, CONN.

PHONE: BRIDGEPORT 3-3125

The Cosmetic Trend

Pointing to the active demand for outdoor cosmetics which many toilet goods counters have enjoyed during the early part of the summer-season buyers believe that the old rule can hold good that rising sales at the start of warm weather generally are succeeded by a similar quick rise of the sales curve early in fall when tourists return to their homes. This, in the opinion of some buyers, does not exclude an otherwise flat summer season as the fall-demand is conditioned by the number of customers that have gone vacationing, while the intermediate period depends largely upon weather conditions.

June sales are reported to have been better than usual in many districts, largely because of the practice of many workers to take their vacation earlier in the year than formerly and because of the generally longer vacation season.

That the vacation exodus has been heavier than ever no one can doubt with the reports of railroads, tourist agencies and resorts before him. If fall business materializes at the rate now foreseen by many buyers this will affect primarily such post-summer season items as hair regenerators, skin aids, hair rinses, shampoos, where the demand curve generally rises with the return of the cooler weather.

Because of the somewhat confusing weather conditions buyers of department stores and specialty stores will be inclined to pay less attention to the midyear showing of their counters when laying their plans for their cold season purchases than in former years. For those buyers, who have been looking all this year at the black side of things, the performance of their toilet goods counters may have proven often somewhat of an eye opener.

Actually there has been quite a lot of sustained buying from all sources and at fairly satisfactory price levels. While the situation may have been spotty in some directions there will be very few counters that have done less than last year and many others where sales have exceeded last year's levels.

However, even with the improvement that numerous department store toilet goods counters have made, and the recovery of some, there remains a lesson for the average cosmetic manufacturer in that cosmetic sales can grow, and have grown in fact, during last year in the face of a static, or only slightly expanding department store market.

Obviously, the sales and growth potentialities of the toilet goods market are not yet exhausted as long as there is enough consumer demand left to raise consumption another 3 to 5 percent for this year, on top of the already exceptionally high levels of the early part of 1946.

At Lady Esther

Norman Phelps, who in our opinion has one of the best creative minds in advertising, and certainly has the hottest collection of high boiling point words for perfumes and cosmetics, has left Ruthrauff & Ryan to open a Chicago office for Biow. The reason—Lady Esther.

Those who watched Norman establish a new advertising style through the pages for Tabu, Chen Yu, Cloud Silk and other accounts, may expect things to happen not only for Lady Esther, but in Chicago.

There ought to be some pretty swift foot work at Lady Esther during the coming year—with Norman Phelps handling the advertising, Dave Kendall directing sales, and with Joe Schultz handling production and quality control, things are bound to be interesting.

No Luxury

Plenty of quiet work is being done on the excise tax, and there is even hope that this will be reduced to 10 per cent, before the year is out. Congressional hearings are still going on, and some very forceful presentations have been made to prove that this tax is an unfair, discriminatory burden on the industry and on the public, and that cosmetics cannot be classed as a luxury.

Of all the thoroughly convincing arguments to prove that cosmetics are not a luxury, we find missing in every one of these presentations, some facts which have always been the most convincing to us. There are a great many scientific, authentic consumer surveys made by leading magazines and newspapers. These surveys cover a period of years, and the current ones cover many millions of women in every type of environment and every walk of life.

If these surveys are all added together and averaged up, we find that over 90 per cent of the women in this country are using face powder, over 80 per cent are using lipstick, rouge and face creams, and over 70 per cent are using nail polish, hand preparations and shampoos.

In other words, we can fairly say and prove that 80 per cent of the women in the country are using cosmetics. If this be luxury, what is necessity?

Philadelphia Brand Preferences

In the survey conducted by the Philadelphia Evening Bulletin, the detailed study of branded products and the preferences by America's third largest market might be of interest to manufacturers, and distributers.

Among the subjects covered were preferences in toiletries and cosmetics, where they were bought, and trends in the sale of these products.

It was found that more than 44 per cent of those questioned in the survey bought their cosmetics and toiletries in independent drug stores, with chain store second 22 per cent, and department stores third with better than 19 per cent. Variety stores came last with about 13 per cent.

Face powder is used by more than 90 per cent with Coty's leading in preference with some 20 per cent. Max Factor came second with 14 per cent, Lady Esther also 14 per cent. Pond's was forth in popularity, chalking up about 8 per cent, Evening in Paris next with 6 per cent.

Facial cream was found to be used by 80 per cent of those asked with Pond's being used by more than 34 per cent, Lady Esther second with 19 per cent and Woodbury third with about 9 per cent.

Liquid or cream hand lotion found Jergens used by more than 45 per cent and Pacquins a bad second with just under 10 per cent. Hinds third with 8 per cent.

Lipstick was used by 80 per cent with Max Factor and Revlon fighting it out for first place each with 16 per cent. Coty came next with 12 per cent, then Pond's, 7 per cent.

In the shampoo department Drene lead with more than 21 per cent claiming to use it, with Halo second, 20 per cent. Not too many got on the Fitch bandwagon this year since that was third with 15 per cent as compared with more than 17 per cent last. This may

Lanvin offers a new product called Eau de Lanvin, which is a toilet water without relation to the other Lanvin fragrances. Another new product is Eau de Lanvin Rumeur, a toilet water version of Rumeur perfume.

"Look Twice" is the name that La Cross has bestowed upon its newest Naylon product. Look once and you see an iridescent ball—lift off the top of the sparkling sphere and you find Naylon nail enamel and lipstick.

The Solitair "make-up kit" consists of a de luxe plastic compact of Solitair cake make-up, a Du Pont cosmetic sponge, and a Solitair Fashion Point lipstick.

be due to the Phil Harris program, at least he gets in their hair.

Brushless shaving cream found Barbasol favorite with 22 per cent, and Palmolive just a whisker behind with 21.5 per cent. Colgate third with 11 per cent, Mennen's 8 per cent.

Toothpaste was used by 88 per cent with Colgate the heavy favorite more than 45 per cent. Pepsodent second 15 per cent. Ipana 14 per cent, and Kolynos with about 8 per cent.

Over 79 per cent said they used deodorants with Mum the most popular with 35 per cent. Arrid next with 23 per cent and Fresh had about 9 per cent claiming to use it.

Revlon led in nail polish preference with 49 per cent of those interviewed saying they used it. Cutex came next with 22 per cent. Chen Yu third, 10 per cent and Dura Gloss with about 7 per cent.

St. Paul Survey

Another city has been heard from with a consumer analysis on the preferences of its citizens for cosmetics. This time the St. Paul Dispatch-Pioneer Press has conducted a survey.

Of those questioned, more than 51 per cent said they bought cosmetics and toiletries in department stores, while 25 per cent traded at independent drug stores. 8 per cent said they bought toiletries at chain drug stores. Variety stores go about 5 per cent of the business.

Coty led in preference of those using face powder with 16 per cent. Lady Esther next with 14 per cent. Max Factor was third with 13 per cent nosing out Avon with 12 per cent.

In facial cream, Ponds was most popular used by more than 16 per cent. Lady Esther was second with some 14 per cent, and Avon third with 10 per cent. Woodbury's fourth being used by about 8 per cent.

Revlon as usual led the parade in nail polish being the favorite of 40 per cent of the respondents. Cutex next with 20 per cent., and then Dura-Gloss with 13 per cent. Chen Yu, 8 per cent, and Avon 7 per cent.

Max Factor led in lipstick preference with better than 16 per cent. Avon second with 14 and a half per cent. Revlon third 14 per cent. Coty 10 per cent.

Mum was the most popular deodorant with 23 per cent claiming its use. Next came Arrid with 21 per cent. Fresh third, 11 per cent.

For the first time since the introduction of New Horizons in 1941, Ciro is making news by presenting a concentrated eau de toilette in its four fragrances—Reflexions, Surrender, Danger and New Horizons.

Prince Matchabelli presents the Abano bath oil sceptre set—four little sceptre bottles in a row in a blue and green striped box. These miniature sceptre bottles are conveniently sized for tucking into a traveling bag.

Revlon promises that Revlon nail enamel will stay on until it is taken off with its new product called "Everon," a base-coat, designed to safeguard against peeling and stripping.

MORE EYES REACH FOR YOUR PRODUCT

IN CARTONS OF COATED LITHWITE*

...It's CLAY-COATED—*PLUS!*

You'd *expect* a big sales-plus from cartons of *Coated* Lithwite . . . the board that's *clay-coated* . . . PLUS! 89 years of papermaking know-how produces the first plus . . . a high quality base stock that is exactingly level.

8 straight years of experience with a revolutionary, new process produces the *second* plus: a precision, *filmed-on* clay coating that is unusually bright and white . . . smooth, even, chalk-free. That's why you'll find that *Coated* Lithwite takes inks so brilliantly . . . brings colors up so vividly . . . reproduces plates with such sharp, *reach-for-me* realism. *Coated* Lithwite is rub-resisting, fade-resisting, too. Easier to glue. Folds and scores without flaking or shattering.

Additional equipment for the production of *Coated* Lithwite is being installed and may be ready in time to make your next run of cartons. We'd like to show you now how *Coated* Lithwite can give your product a big plus on shelves and counters.

A product of THE GARDNER-RICHARDSON CO.

Manufacturers of Folding Cartons and Boxboard, Middletown, Ohio

*Reg.U.S.Pat.Off.

Sales Representatives in Boston, Chicago, Detroit, New York, Philadelphia, Pittsburgh, St. Louis.

Efficient
Dependable
Beautiful

..THE ANCHOR MOLDED CAP

DO you want a cap that is efficient, fast to apply, easy to seal? A cap that gives a dependable airtight and leakproof seal? A cap that will add sales appeal to your package?

Then seal your bottles with the Anchor Molded Cap, a cap that provides all these desirable qualities

Chief feature of the Anchor Molded Cap is the patented liner retaining ledge and recess. The ledge holds the full size liner securely in place, yet permits it to rotate during the sealing operation. That means no buckling, wrinkling or creeping; no damage to the liner from any imperfections in the glass sealing surface; every seal is efficient and dependable.

The thread of the Anchor Molded Cap gives full 360 degree contact with the glass thread; makes possible even distribution of sealing pressure, assuring a tight, leakproof seal.

The Anchor Molded Cap's handsome appearance favorably influences consumers. Its lustrous jet black, permanent surface and smartly styled skirt add much to package quality and value.

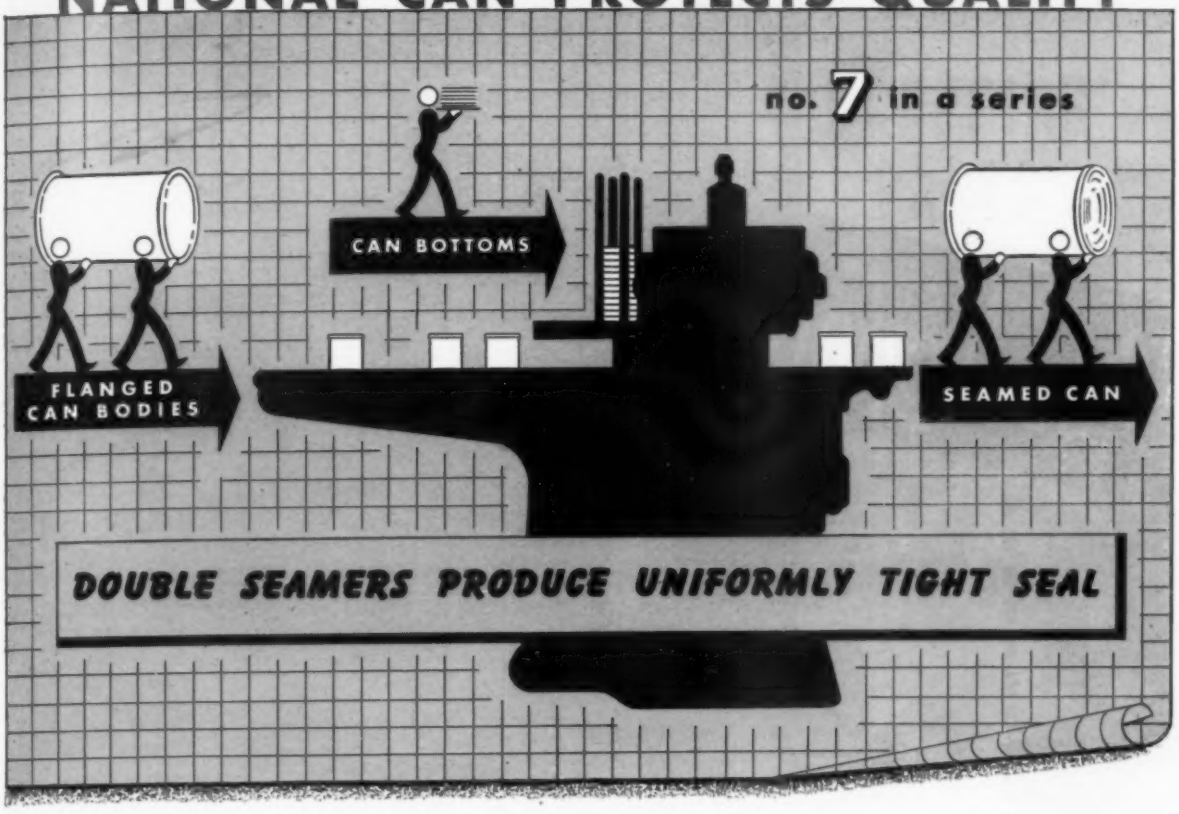
- **Increases package sales appeal**
- **Scratch-proof finish**
- **Liners held secure in cap**
- **Liners protected from buckling**
- **Even distribution of sealing pressure**
- **Provides airtight, leakproof seal**

Anchor
CONTAINERS and CAPS

PRODUCTS OF
ANCHOR HOCKING GLASS
CORPORATION
LANCASTER, OHIO

Tune in "Crime Photographer" every Thursday evening, entire Coast-to-Coast Network, CBS.

NATIONAL CAN PROTECTS QUALITY



As double seaming follows flanging, metal container manufacturing methods at National Can Corporation's plants show no letdown in either speed or accuracy. Again, at a rate in excess of 300 cans per minute when high speed equipment is used . . . again with the aid of automatic precision machines . . . extremely exacting standards of control are maintained.

The double seamer rolls or seams together the flanged end of a can body and a can bottom which has been made in separate sub-assembly. At National Can, greater preciseness goes hand in hand with high speeds. Two sets of balanced rollers (integral with the seaming head) engage the pre-curled can end across its diameter, resulting in an interlocking of end with body flange to a firm and continuous seal. As a result many thicknesses of metal (with a Latex liner binder) help to produce a uniformly tight seal.

These double seamers are "custom-built" — manufactured in National Can Corporation's machine shops, designed, constructed and supervised by the company's staff of engineers.

NATIONAL CAN
CORPORATION

Executive Offices: 110 EAST 42nd STREET, NEW YORK 17, N. Y.

SALES OFFICES AND PLANTS IN: BALTIMORE, MD. · CHICAGO, ILL. · HAMILTON, OHIO · BOSTON, MASS. · INDIANAPOLIS, IND. · MASPETH, N. Y. · CANONSBURG, PA. · ST. LOUIS, MO.

Highly recommended by its makers as an aid in promoting appetite is Nucoferrin, a haematinic and tonic in nutritional or secondary anemia.

In company with many other manufacturers of fine drug products, Purity Drug Co., Inc. of Passaic, N.J. relies on Crown Screw Caps. They find that scientifically correct liner material, uniform liner thickness and precision accuracy of cap shells are features that assure dependable sealing. In addition, the exclusive Crown Deep Hook Thread, which gives greater sealing pressure for any given amount of application force, provides "plus protection" during the shelf life of the product. Crown Cork & Seal Company, Baltimore 3, Maryland. *World's Largest Makers of Metal Closures.*

CROWN CLOSURES

THE CONSISTENT HIGH QUALITY OF

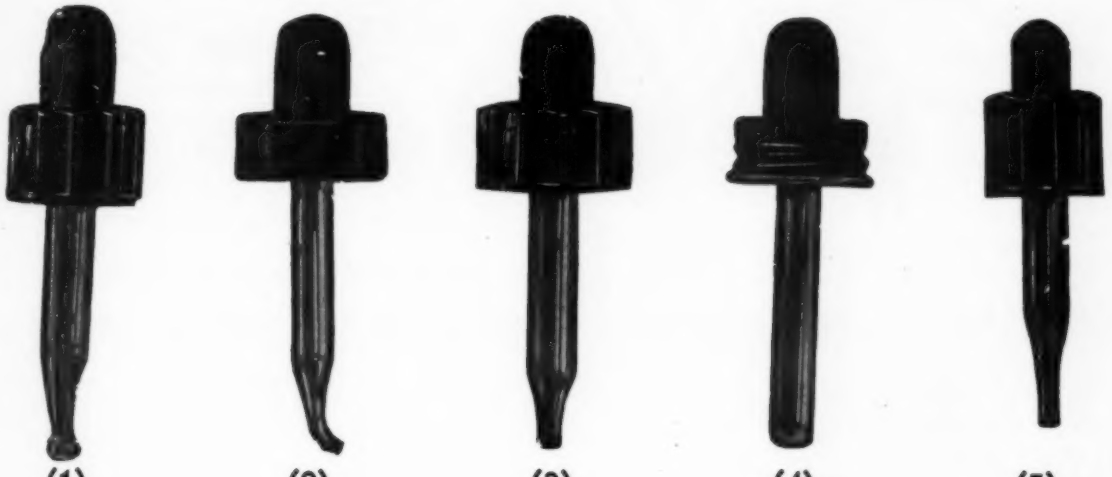
New Perfection DROPPING PARTS

Increases Satisfaction with Your Product

Your carefully developed product is seldom judged by itself alone. Customer reaction is associated with many things—particularly with the convenience and accuracy with which the product can be administered.

Your best guarantee of cleanliness and efficient functioning is the use of NewPerfection dropping parts with your product. Carefully manufactured New Perfection dropping parts are the leaders in their field.

In addition to a variety of dropping parts specially designed for use with your own bottles, we can supply these parts in combination with our Modernistic style bottles in Amber, Blue, Green or Clear glass. Sizes—2 cc. ⅛, ¼, ½, 1 and 2 oz.



(1) Non-rolling, extra-depth, Bakelite Cap; thick flange rubber part; Saftee ball glass.

(2) Metal cap; thin flange rubber part; special bent glass.

(3) Regular plastic cap; thin flange rubber part; semi-blunt glass.

(4) Single shell metal cap; non-swelling Amekine synthetic rubber part without strong odor; blunt glass.

(5) Small size plastic cap; midget rubber part; regular straight glass.

• AMEKINE Synthetic Rubber Parts FOR OILY PREPARATIONS . . .

For products of an oily nature we recommend Amekine synthetic rubber parts. Amekine, originated by Pennsylvania Glass Products Co. and proved through long and wide use, retains its shape and does not swell like natural rubber after long exposure to oil.

• Calibrated Dropper Glasses FOR ACCURATE DOSAGE . . .

If your preparation is to be administered by specific doses, our calibrated dropper glasses will be invaluable. The glasses are marked in color at levels which indicate any desired capacities . . . Assurance of uniform and accurate dosage.

Write for Samples and Quotations

PENNSYLVANIA GLASS PRODUCTS CO. INC.

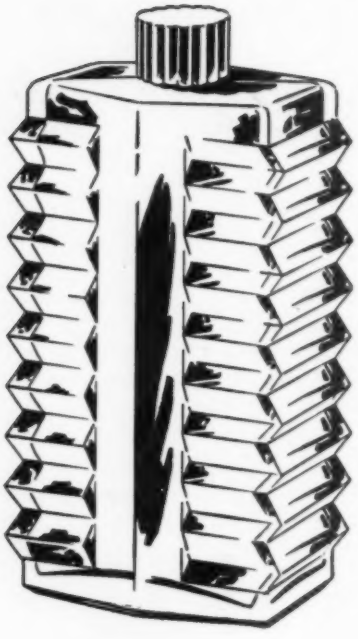
"GLASS GOODS OF THE BETTER KIND"

428-432 NORTH CRAIG STREET . . . PITTSBURGH (13), PA., U.S.A.

CARR-LOWREY CONTAINERS

TRADITIONAL

Quality



For over 58 years, prominent perfume and cosmetic manufacturers have looked to Carr-Lowrey for the finest in glass containers for perfume and cosmetics.

Whether your need is for private design handmade or machine made containers . . . or a stock item from our wide assortment, you can buy CARR-LOWREY products with confidence.

CARR-LOWREY GLASS CO.

Factory and Main Office: BALTIMORE 3, MD. • *New York Office:* 500 FIFTH AVENUE (18) • *Chicago Office:* 1502 MERCHANDISE MART (54)

OPAL JARS • HANDMADE GLASS BOTTLES • MACHINE MADE FLINT GLASS BOTTLES

PAY ATTENTION TO WOMEN... IT PAYS

• Neglect women (if your product sells at retail) and you neglect ¾ of your market. *Women buy ¾ of all goods sold at retail!*

It pays—but it's not easy—to understand *women's* buying habits. (Why do they buy the kinds of hats they do?) It IS known, from nationwide surveys, that women make *at least* 62% of their buying decisions AFTER they have entered the stores. *There they are influenced by what they* SEE!

There—they see PACKAGES! And *with women* the *appearance of the package* is often the *deciding* sales factor.

Does Your Package do this?

The package that catches their eye, arouses their interest and makes a better impression of *quality within* than competing packages—MAKES MORE SALES!

NEVER UNDERESTIMATE THE POWER OF THE PACKAGE!

W.C. Ritchie AND COMPANY

8024 BALTIMORE AVENUE • CHICAGO 17

- SET-UP PAPER BOXES
- FIBRE CANS
- TRANSPARENT PACKAGES

WAY TO INCREASED SALES

Let Ritchie help you develop (at low unit cost) a package that meets the increasing challenge of self-service retailing. A practical, production-planned package that instantly identifies, fully protects and conveniently dispenses your product. Easy to fill or pack—to handle, to stack or display—but above all an attractive, SELLING package.

NEW YORK · DETROIT · LOS ANGELES · ST. LOUIS · MINNEAPOLIS · MILWAUKEE · PITTSBURGH · MIAMI

This bubble bath bottle is A-4774. The new, colorful Empress closure provides a flattering finishing touch.

A BEAUTY TREATMENT

The *exactly* right container glamorizes your product

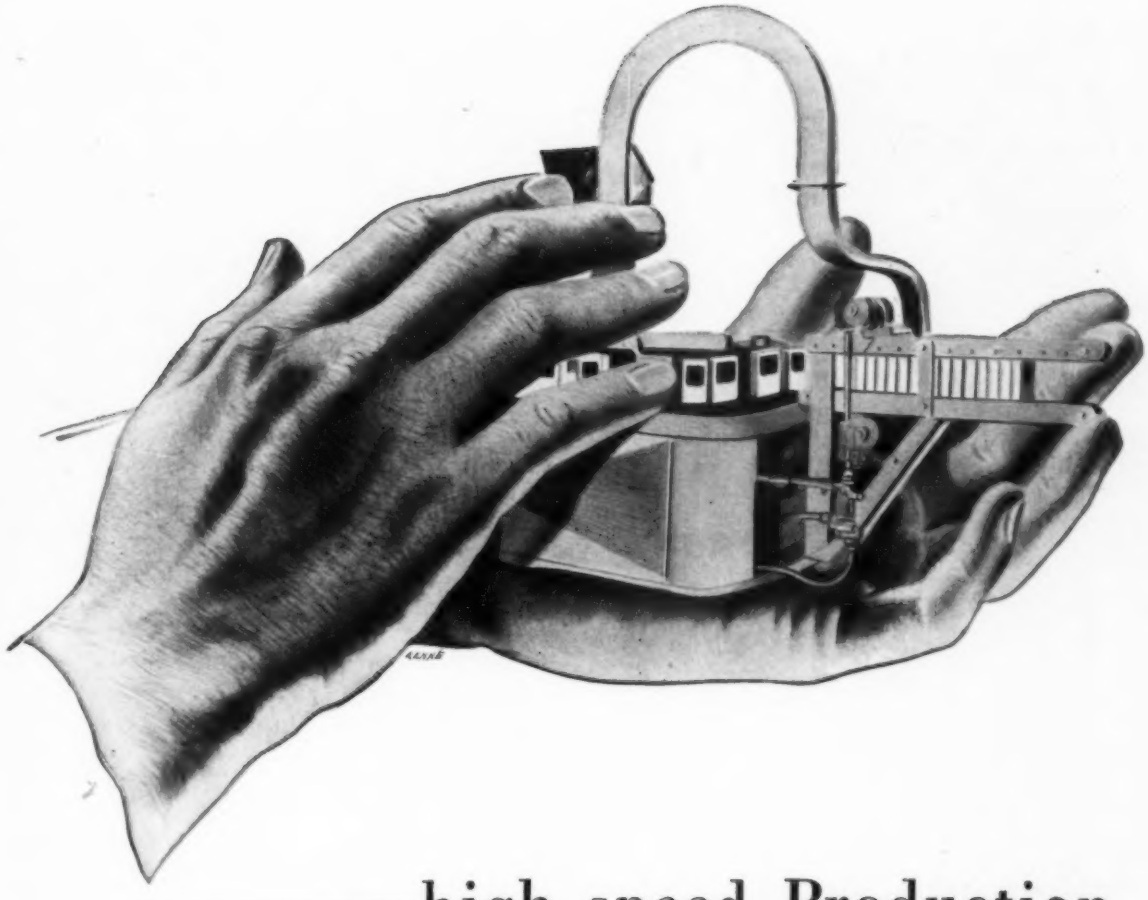
Treat your glamor product to a "face-lifting"! Give it more dressing-table appeal by choosing a flattering setting for your label—a container that has grace of line, long-lasting luster, an attractive closure.

The economical stock drug, chemical and toiletry line of Duraglas containers offers more than 1400 different bottles that combine bright beauty with the dependable protection and convenience that the *right* container affords.

Despite production limitations which today restrict the *quantity* of containers available, our customers need not sacrifice on the *quality* of their packages.

Duraglas TRADE MARK REG U.S. PAT. OFF. CONTAINERS—Protectors of Quality

OWENS-ILLINOIS GLASS COMPANY, TOLEDO 1, OHIO Branches in Principal Cities



——high speed Production

Well in Hand!

GAIRanteed folding cartons are endowed with a recognized two-fold LEADERSHIP . . .

LEADERSHIP for outstanding performance on high speed production lines.

LEADERSHIP for winning commanding attention of buyers in highly competitive retail markets.

Precision and design problems entrusted to GAIR are always "WELL IN HAND".

Write for informative booklet on PRECISION PACKAGING

ROBERT GAIR COMPANY, INC., NEW YORK, TORONTO • PAPERBOARD FOLDING CARTONS, SHIPPING CONTAINERS

Give your package distinction with a Private Design Cap

A distinctive package is a step toward greater sales. These three Armstrong's Artmold Cap designs may suggest ways to enhance the appearance of your package and give it an air of quality. The individuality gained by an Artmold cap emphasizes the quality of your product and makes a lasting impression on the customer's memory. Once selected, your Artmold cap is exclusively yours. For design and color suggestions, and cost estimates, including mold costs, send us a sample or drawing of your package. Armstrong Cork Company, Glass and Closure Division, 1908 Prince Street, Lancaster, Penna.

ARMSTRONG'S *Artmold* CAPS
PLASTIC

Famous Plastics

FOR FAMOUS MERCHANDISE

Plaskon plastics are molded into a wide variety of distinctive designs for many inhaler manufacturers. A few typical large-sale items are shown at the right. The inhaler at the top is dissembled to show the various Plaskon molded units that make up the finished product.

Plaskon adequately meets the unique requirements of this type of drug trade product.

Precision molding to meet certain assembly and operating functions is essential. Because Plaskon is an inert material, there is no reaction with the inhalant. The surface of molded Plaskon is non-porous and sparkling. It has the clean, sanitary appearance so essential in pharmaceutical products that require personal contact in use. It is light and warm to the touch.

Plaskon molding compounds can be transformed into almost any distinctive, practical shape or size of product, in clear, brilliant tones that are uniform and permanent. Write for free illustrated book showing many uses of Plaskon* urea-formaldehyde and melamine-formaldehyde molding compounds in manufacturing and merchandising.

The Plaskon inhalers shown here are molded by Owens-Illinois Glass Company, Toledo, Ohio.

*Reg. U. S. Pat. Off.

PLASKON DIVISION • LIBBEY • OWENS • FORD GLASS CO. • 2110 Sylvan Ave., Toledo, Ohio

In Canada: Canadian Industries, Ltd., Montreal, P. Q.

PLASKON

TRADE MARK REGISTERED

MOLDED COLOR

CAN YOU

See into Glass?

Of course, you can see *through* a glass bottle. But you can't see *into* the glass; you can't see those qualities of sturdiness, uniformity and dependability which are so important for the protection of your product.

However, you can be assured of these qualities when SWINDELL makes your bottles. Long years of acquired skills and experience have equipped us to meet your requirements — whether in stock or private mould bottles, machine-made or hand-made.

At your service!

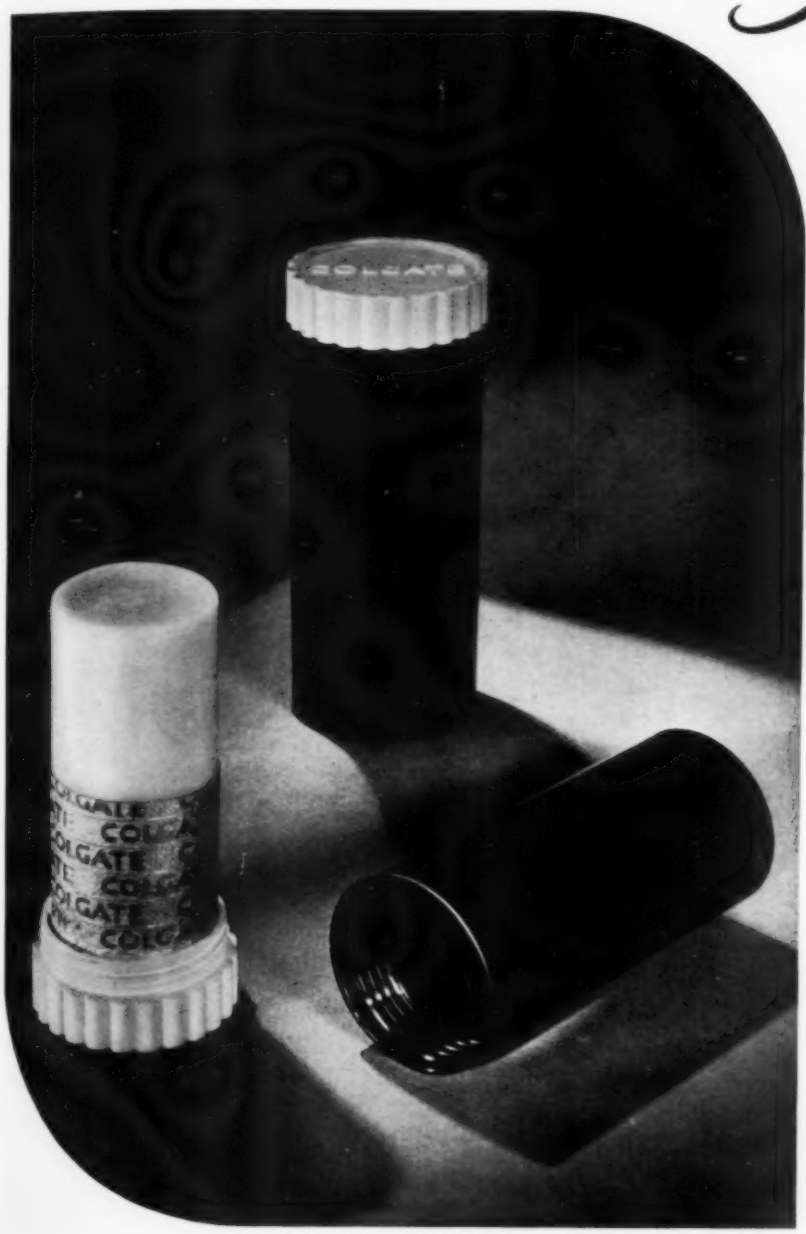
SWINDELL BROTHERS, Inc.

200 FIFTH AVE., NEW YORK ★ BALTIMORE 30, MARYLAND ★ ROBERTO ORTIZ • HAVANA, CUBA

Swindell

Successful Packaging--

by *Standard* CAP



Elaborate design or sheer simplicity, both are best expressed when the closure is of plastic . . . the material that comes in beautiful colors . . . that is color-fast . . . that won't scuff or scratch.

At Standard you will find an organization that is thoroughly experienced in the planning and production of private mold closures and containers. There is also a wide variety of plastic closures in standard sizes and designs from which to choose.

This all plastic container, molded by Standard for the Colgate-Palmolive-Peet Co., is indicative of the beauty and efficiency that plastics can bring to the packaging of your product.

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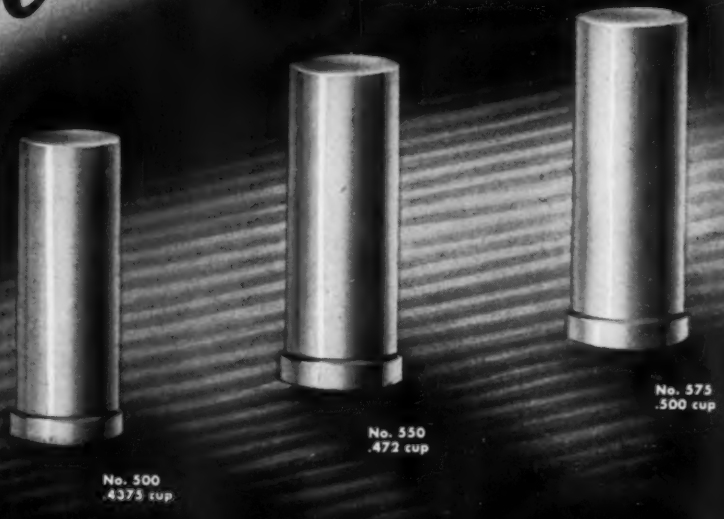
SWIVEL LIPSTICK CONTAINERS



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- "Click-Tite" closure*

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Whether it be perfume, toilet water, bath salts, deodorant or any item in the field of cosmetics, *eye appeal is buy appeal!*

Give your products this power to create attention—arouse interest and stimulate desire on the part of prospects. Package them in sparkling Knox Glass containers.

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KNOX GLASS ASSOCIATES, INC., Knox, Pa.

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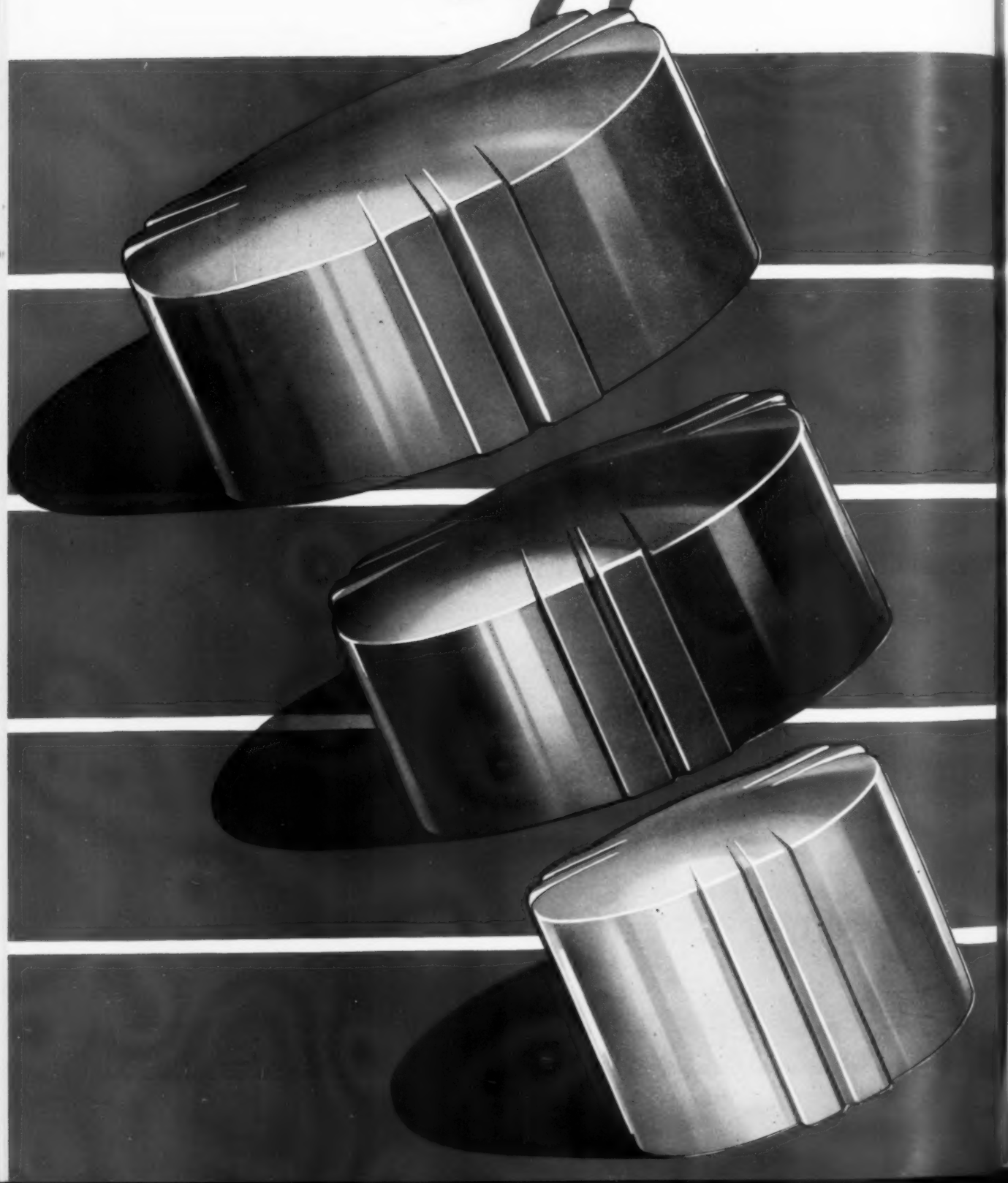

TO BROCKWAY SERVICE

GOOD NEWS! New plastic closure service now available from Brockway Glass Company, Inc. Immediate shipment, in large or small quantities. Any color you want, in sizes up to 28 mm., in attractive "Ribbon" design as illustrated.

This new Brockway convenience has been set up especially to give you one reliable source for glass containers and plastic closures. Prompt shipments enable you to maintain production without excessive closure inventories.

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Brockway, Pennsylvania · Muskogee, Oklahoma

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The Symbol of Quality

DISTINCTIVE DRESS

CUSTOM-MOLDED

by Norton . . .

in rich, glowing plastics

for HIM

for HER

● Containers and covers like these fitting backgrounds for the famous names they bear. In richness, beauty and dignity, they have a "pick-me-up-and-take-me-home" appeal that sells discriminating buyers at America's luxury counters.

Today more and more of the customers are men, and Mark Cross have handsomely packaged their "Cross Country" line of fine toiletries for men of good taste. These Norton containers and caps of rich black phenolic plastic are getting plenty of male attention.

You'll probably also recognize these attractive plastic make-up cases . . . all molded by Norton in beautiful, non-fading colors or white with rich embossed designs. They suggest the versatility as well as the quality of our work.

Norton design engineers are ready to advise you competently on any question involving plastics packaging. Our large facilities and our experience with leading cosmetics houses equip us to handle your molding requirements with great efficiency. We can deliver in quantity . . . and with speed.

Why not call or write us today? Norton Laboratories, Inc., Lockport, New York.

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LUSTEROID is amazingly light in weight, yet strong, rigid, unbreakable. These qualities combine to give you economies that cut handling, packing and shipping costs.

All colors of the rainbow are available for eye appeal. What's more, your name and sales message can be printed as an integral part of these containers, thus saving on labeling expense.

Sizes from ¼ to 1-¼ inches in diameter and lengths up to 6 inches. Cork, slip-on or screw-cap closures. Write for full details.

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PHILADELPHIA 22, PA.

For Four Generations, Manufacturers of Distinguished Paper Boxes for Distinguished Products

32 years of label experience

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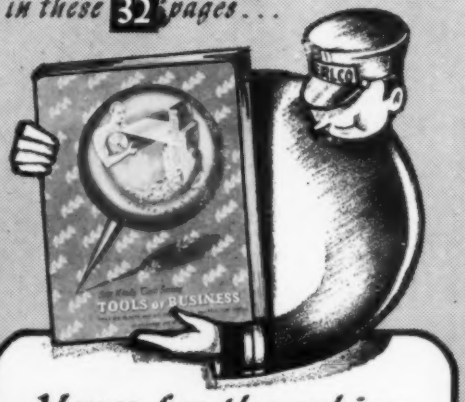

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STRONG, ATTRACTIVE and DURABLE

Entirely impervious to light, a protection for its contents.

Light weight, lowering shipping cost. Breakage eliminated.

Furnished in sizes from ½ oz. to 5½ gallons.

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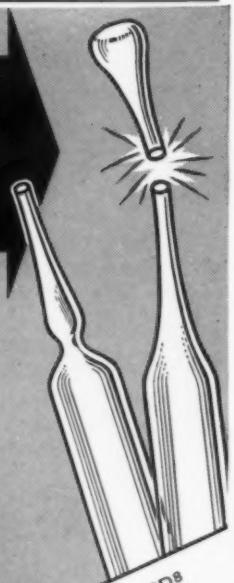
All Coby Ampoules are "VACUUM FREE" Before Snipping



Special process breaks vacuum in ampoule before snipping, to minimize the foreign particles and glass dust that may be sucked in when ampoule end is cut off.

Extensive line stocks all common sizes in both straight and constricted neck ampoules.

EXPERT GLASS BLOWERS SPECIALIZE IN COMPLETING ODD SIZES AND STYLES TO CUSTOMER'S SPECIFICATIONS.

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- ABSOLUTELY PURE
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Lustrously black jars, ceramically transformed out of standard flint jars by our Glass-Crafters shop! The jet black is permanently fired-in and is really swank! Available from stock in 1, 2, 4, 8, and 16 oz.

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NEWS...

Lever Bros. Acquire Harriet Hubbard Ayer

Lever Brothers Company have acquired Harriet Hubbard Ayer, Inc., one of the oldest companies in this country making cosmetics, toilet preparations and perfumes.

Terms of the transaction have not

RALPH P. LEWIS

been disclosed, but it was stated that the entire capital stock of the New York cosmetic company was transferred to Lever Brothers. Harriet Hubbard Ayer, Inc. will continue to operate as a separate independent unit of the Lever Brothers organization and would not be merged with the other activities of the Company.

The business, incorporated in New York in 1907 was controlled by Mrs. Lillian S. Dodge, widow of B. P. Thomas, principal incorporator of Harriet Hubbard Ayer, who was president until 1918. A subsidiary corporation, Harriet Hubbard Ayer Laboratories, Inc., also acquired by Lever in the transaction, was chartered in 1939. Mrs. Mary S. Thomas, daughter of Mrs. Dodge, is president of the subsidiary and also vice president of the parent business.

The transaction marks the second time in three years that Lever Brothers Company, which now enters the cosmetic business, has acquired a major U. S. business. In 1944, the Pepsodent Company, of which Mr. Luckman was president, was bought and made a division of the Lever organization. Mr. Luckman later became president of Lever Brothers.

Ralph P. Lewis has been named president of Harriet Hubbard Ayer, Inc. Since 1945, Mr. Lewis has been associated with Elizabeth Arden Sales Corporation as general sales manager, and, subsequently vice president in charge of sales. Prior to that, he was sales manager of the western division of the American Bank Note Company, having joined that firm upon leaving the University of Chicago where he was a member of the class of 1926.

N. Y. Q. Names Baizer Director

The New York Quinine & Chemical Works, Inc., has appointed Dr. Manuel M. Baizer director of research. He was formerly with the General Chemical Company, New York.

Heyden Boosts Carnarius

Edwin H. Carnarius has been named manager of the Heyden Chemical Corporation Penicillin Plant at Princeton, N. J.

Mr. Canarius a graduate of Rose Polytechnic Institute, Terre Haute, Ind., was formerly with Publicker Industries in Philadelphia where for eight years he held the post of general super-

EDWIN H. CARNARIUS

intendent and works manager. Prior to that he was employed for seventeen years by Commercial Solvents Corporation as process superintendent.

Hart Appointed VP of Winthrop

John W. Hart, vice president of Winthrop Products Inc., has been appointed vice president in charge of professional relations of the Winthrop Chemical Company, Inc.

Mr. Hart's new duties will involve liasion work between Winthrop's medical department and physicians in the Caribbean countries, Hawaii, and the Philippines. He retains his present executive position with Winthrop Products.

For 27 years, Mr. Hart has been associated with Winthrop. Among physicians he is one of the most widely known pharmaceutical executives in the country. A native of Washington, D. C., his first contact with the medical profession

JOHN W. HART

came when he served as superintendent of the Emergency Hospital of that city. Subsequently, he served with the regular Army, and later was an officer of the venereal disease control division of the U. S. Public Health Service.

Revlon Advances Mitson

Carl Mitson has been appointed general sales manager of the Revlon Export Corporation. Prior to this, Mr. Mitson has been associated in an executive capacity, with the export activities of the Vick Chemical Company and later the Sterling Products International, Inc.

Swindell Elections

Robert H. Swindell, great grandson of one of the founders of Swindell Brothers, Inc., has been elected president of the corporation. Mr. Swindell had been secretary.

Joseph B. Scott, vice president and sales manager was named general manager. Walter S. Nuckols, manager of the New York office, was elected a vice president, while Robert B. Hamill controller, was elected secretary and treasurer.

George Mast Made Asst. Medical Director

George W. Mast, M.D., has joined Commercial Solvents Corporation as associate medical director of its pharmaceutical division in New York. He will work with Dr. Lawrence W. Smith, medical director, on clinical testing of the company's pharmaceutical products.

GEORGE W. MAST

Before becoming associated with Commercial Solvents, Dr. Mast did medical staff work for the Navy and was in charge of venereal disease control. During the war he was assistant surgeon of the Fleet Marine Forces in the Pacific.

Willis Harrington Retires

The retirement of Willis F. Harrington as a member of the executive committee, and his resignation as a vice president of E. I. duPont de Nemours & Company has been announced. At the same time J. Warren Kinsman, general manager of the company's Fabrics and Finishes department, and a member of the board, was made a vice president and was designated as a member of the executive committee. Mr. Harrington will continue to serve as a member of the board.

Mr. Harrington's retirement terminates an active career with the Du Pont Company that began in 1904. He was born at Farmington, Del., in 1882 and was graduated from the University of Delaware in 1902, and from M.I.T. three years later. He joined the company upon completing his college work as a chemist at the Barksdale, Wis., explosives plant. In 1915 he assisted in the organization of smokeless powder manufacture at the Haskell and Carney's Point plants. In 1921 he was made director of the dye-stuffs department, becoming assistant general manager in a new plan of organization the same year. In 1924 he became general manager of the department, and it was while he held this post that Du Pont developed into one of the country's leading manufactures of organic chemicals.

He was elected to the board of directors in 1927, and was designated as a vice president and a member of the board of the executive committee in 1929.

Mr. Kinsman joined Du Pont in 1915 as a general foreman of the Bayway, N. J. plant of the high explosives operating department. At the end of the first world war he went to the sales department of the Du Pont Chemical Works until 1921, when he became special assistant in the dyestuffs department. In 1924 he was appointed special assistant director of sales in that department and five years later was made director of sales for the Organic Chemicals Division. He was appointed assistant general manager of the plastics department in 1941. In 1944 he became general manager of the fabrics and finishes department.

Sittenfield Opens Consulting Office

Marcus Sittenfield has opened offices for technical consultation at 1441 South Broad St., Philadelphia. He is a registered professional chemical engineer and was formerly project engineer in the research and development division of Publicker Industries. Mr. Sittenfield served with the Chemical Warfare Service at Edgewood Arsenal, following a period with Sherwood Refining Company. He intends to specialize in the economic appraisal of drug and chemical markets, in patents, organic synthesis, and in engineering design.

Rodgers Names Feinstone

James L. Rodgers, president of the Central Pharmacal Company, Seymour, Ind., has appointed Dr. W. Harry Feinstone as director of research and development. Dr. Feinstone was director of biological research for the Pyridium Corporation since 1943 and prior to that was with the American Cyanamid Company.

DR. W. H. FEINSTONE

After graduating from the University of Arkansas in 1936 Dr. Feinstone received his Doctorate in Bacteriology from Johns Hopkins in 1939. He then joined American Cyanamid to organize and direct its biological chemotherapy laboratory.

Walker Expansion

At the annual meeting of the stockholders, Dr. James W. W. Walker, founder of Walker, Corp. & Co., Inc., Syracuse, announced the purchase of a new building to meet the expanding needs of the company.

Houbigant salesmen during their sales convention in Minnesota: Standing from left to right are Messrs: Neeson, Sherman, Kiernan, Spector, Dickson, Richtenburg, Darcey, Lichtward, Scott, Harang, Casey, Marshall, Carlyn, Robbins, Gladding, Riordan, Georgi, Stilwell. Sitting are: Hannon, Giurato, Garimaldi, Grant, Taylor, Payson, Davis, Julicher, Coe, Spencer.

Penicillin by Baker
READY FOR YOUR LABEL
4 TYPES NOW AVAILABLE
1 Crystalline Penicillin G Sodium in vials — 100,000, 200,000, and 500,000 units. In bulk containers — 50 million and 100 million units.
2 Penicillin in Oil and Wax (Calcium Amorphous or Sodium Crystalline) in cartridges, vials and bulk containers to meet specifications.
3 Amorphous Penicillin Sodium in vials — 100,000, 200,000, and 500,000 units.
4 Amorphous Penicillin Calcium in bulk containers — 10 million, 50 million, and 100 million units.
For tablet manufacturers Baker offers both Amorphous Penicillin Calcium and Crystalline Penicillin Sodium in bulk.
Inquiries are invited by drug and pharmaceutical companies who want a dependable source of supply.
For further facts write J. T. Baker Chemical Co., Executive Offices, Phillipsburg, New Jersey.
Baker's Chemicals
C. P. ANALYZED • FINE • INDUSTRIAL

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One Quality . . . The Best!

ROURE-DUPONT, INC.

ESSENTIAL OILS, AROMATIC CHEMICALS AND PERFUME BASES

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ROURE-BERTRAND FILS et JUSTIN DUPONT
GRASSE (A. M.) FRANCE — ARGENTEUIL (S. & O.) FRANCE

Bryan Advanced

Charles C. Bryan has been appointed managing director of Firmenich & Co., New York.

DeLamar-Hendrey Co. Formed

The DeLamar-Hendrey Chemical Company, Inc., has been organized in Chicago to act as distributors and brokers of chemicals, and essential oils.

Principals in the organization are Robert DeLamar, A. M. DeLamar, and

ROBERT DE LAMAR

Waldersee B. Hendrey, Ph.D. Robert DeLamar and A. M. DeLamar have been partners in the firm of J. H. DeLamar & Son, a firm organized forty-nine years ago by their father.

DR. W. B. HENDREY

Robert DeLamar was active in the army where he was in foreign service and later in the office of the Chief, Chemical Warfare Service. Dr. Hendrey has been vice president and sales manager of the Edwal Laboratories, Inc. Previous to 1940 he was assistant research director of Spencer Kellogg & Sons.

Batson Made P. A.

John T. Batson has been appointed purchasing agent for Parke, Davis & Co. He joined the company in 1919, was named assistant to the chief chemist in 1921, and became assistant purchasing agent in 1945. From 1941 until that time Mr. Batson served the government as an advisor on drugs, finally becoming chief of the drug and cosmetic branch of the chemical bureau of the WPB.

Dr. Beyer Visits England

Dr. Karl H. Beyer, director of pharmaceutical research, Sharp & Dohme, Inc., left for England July 11 to meet Sir Alexander Fleming, discoverer of penicillin.

He will also attend the International Physiological Congress at Oxford University and the British Pharmacological Society Meeting, University of London.

Sales Affiliates Action

Sales Affiliates, Inc., of New York, distributors of beauty shop supplies, has brought suit in the U. S. District Court, Chicago, against Halgar, Inc., of Chicago, distributor of home machinless waving kits sold under the trade names Bu-Tee-Shop and Mar-Vo-Kurl.

In the suit, Sales Affiliates charges infringement of its patents and asks for an injunction against the future manufacture and sale of these home machineless waving supplies and payment of damages.

Edgar Chamberlain, general manager of Sales Affiliates stated: "We have purposely never licensed a home waving organization for we felt that professional skill was required for the most satisfactory giving of permanent waves by the machineless methods. We feel that the instigation of this suit is in conformity with the policy that we have followed for over forty years in working closely with the professional beautician."

A. Van Rooijen Visits Here

A. Van Rooijen, director of the Van Rooijen & Co., Pty., Ltd., Sydney, Australia is in this country for a seven weeks' visit, during which time he will investigate markets here and see friends in the trade. He arrived via the West Coast and spent some time there and in Chicago.

After he leaves this country, Mr. Van Rooijen goes to England and the rest of Europe, thence to the Middle East, Singapore and then home to Australia.

His company are importers and manufacturers in flavors, aromatic chemicals, perfume compounds and essential oils.

Maltbie Appoints Stiles

Andrew J. Stiles has been appointed sales manager of the Maltbie Chemical Company, Newark, N. J., succeeding W. J. Burke, vice president, who is assuming other executive duties.

Ayerst, McKenna & Harrison Promote Two

The appointment of Dr. A. Stanley Cook as vice president of Ayerst, McKenna & Harrison Ltd. (Canada) has

DR. A. S. COOK

been announced. Dr. Cook formerly director of research, will extend his research investigational activities in the United States and Canada. His headquarters will remain in Montreal.

K. ROTHMAR

At the same time, the appointment of K. Rothmar as vice president of Ayerst, McKenna & Harrison (United States) was announced. Mr. Rothmar was formerly director of production and will continue in charge of production for both Canada and the United States.

McMann Joins de Markoff

Frank G. McMann, well known in the industry for over twenty-five years has joined Alexandra de Markoffs' sales organization, covering the Middle West.

Lipstick!

Hormone Cream

Night Cream

Cleansing Cream

Make-up Lotion

Make-up Cream

Shampoo

Rouge Cream

Face Powder

Night Cream

Hand Cream

ADVANCED Cosmetics inc.

38-31 CRESCENT STREET
LONG ISLAND CITY, N. Y.

Private Brands

Holden Joins Bristol-Myers

Walter Holden has joined Bristol-Myers Company, New York, as a member of its International division. He

WALTER HOLDEN

will shortly assume his duties as manager of the Bristol-Myers Company of Mexico, in Mexico City.

Mr. Holden is a native of England and received his education in English, Irish and German Schools and has studied business management at La Salle Extension University. He has had wide experience in production management in Mexico City where he has been a resident since 1920.

Ebrey Chem. New Quarters

Ebrey Chemical Works has purchased a new building at 421 N. W. 32 St., Miami, Fla., mainly to attend to exports of the company's preparations to latin America.

Food Co. Forms Drug Division

Hygrade Food Products Corporation, has entered the pharmaceutical field with a new division known as Hygrade Laboratories, Inc., Samuel Slotkin, president and chairman of the board of directors has announced.

The new laboratories are now manufacturing bulk pharmaceuticals from animal glands and tissues available from parent company operations. Norman Applezweig, former research consultant for American Home Products Inc., is technical director of the project.

Chicago vs Detroit in Golf

The 47 members of the joint golf auxiliary of the Chicago Perfumery, Soap & Extract Association, and the Chicago Drug and Chemical Association, journeyed to Detroit for the tenth inter-city meet with the Allied Drug and Cosmetic Association of Michigan.

Bjorksten Appoints Darnell

Dr. Johan Bjorksten, president of the Bjorksten Research Laboratories of Chicago, has announced that James R. Darnell has joined the company as assistant to the president.

Mr. Darnell graduated from the University of Illinois in June 1942. He was subsequently employed as a chemist by the Corn Products Refining Company and the Pure Oil Company. He also taught chemistry at Trinity University in San Antonio, Texas.

Olsen Heads Penick Chicago Office

S. B. Penick & Company has appointed Ralph Olsen as manager of the company's Chicago branch. He suc-

RALPH OLSEN

ceeds Harold Meyer, vice president who has been transferred to the executive staff of the home office.

Merck Executive Promotions

Three executive promotions in Merck & Co., Inc., have been announced by President George W. Merck. Dr. Randolph T. Major has been elected vice president and scientific director. John H. Gage has been named treasurer, and Dr. Per K. Frolich succeeds Dr. Major as director of research and development.

Dr. Major joined the company in 1930 and shortly thereafter was made director of research and development. A graduate of the University of Nebraska, he received his Ph.D. in 1927 at Princeton University.

Mr. Gage became affiliated with Merck in 1937 and has been assistant treasurer since that year. He graduated from Harvard in 1929.

Dr. Frolich, joined Merck in 1946 as co-ordinator of research. He was formerly with Standard Oil development Company in New Jersey. He obtained his doctor's degree at M.I.T.

Correction

In the June issue it was stated erroneously that, Charles Homan had gone to the West Coast to open a new branch for Dodge & Olcott in Los Angeles. It seems that whileMr.Homan had gone out to the Coast, it was to look into the possibility of moving the branch to a new location, namely 908 South Olive St., where the branch is now located. This publication was a little late as regards Dodge & Olcott opening a branch in that city, since in 1915 R. E. Fernald opened one.

Forbes Laboratories Inc., held a three-day sales meeting at the company's new plant in Elgin Ill. Those attending the meeting included divisional sales managers, detail representatives and top staff men of the research and manufacturing departments. C. R. Bunten, president, and H. B. Frost, sales manager presided.

Merrell Promotions

Recent promotions of several executives in the sales, advertising and production departments of The W. S. Merrell Company have been announced

G. W. ORR

by Thurston Merrell, president and general manager.

In the shift, two new jobs have been created in the company's sales executive staff and are now being filled by George W. Orr, Jr., for the past five years advertising manager, who occupies the new post of administrative assistant to the vice president in charge of sales. Eugene W. Traub has been appointed director of market research. He has been with the company for twelve years and has served the last five as head of the production coordination office.

The advertising position vacated by Mr. Orr is being filled by Elliott P. Palmer, who joined Merrell four years ago after spending a number of years in an advertising agency. Mr. Traub has been succeeded as production coordination chief by Charles F. Eger, a veteran of four years Naval service who joined Merrell in 1946.

Payne Advanced by Florasynth

William Lakritz, president of Florasynth Laboratories, Inc., has announced the appointment of Arch Payne as general sales manager of that company. Mr. Payne will make his headquarters at the New York office and plant. He has been with Florasynth for some time in charge of sales and operations in the South and Southwest, with offices in Dallas.

Norwich Advances Two

William D. Woodburn, formerly manager of The Norwich Pharmacal Company's Northern sales division, has been appointed manager of the Eastern sales division with headquarters in New York City. Mr. Woodburn joined Norwich as a sales representative in 1934 and was promoted in 1941 to manager of the Northeast sales district. In 1943 he became assistant manager of the Northern sales division and was promoted to manager in 1944.

H. R. Anderson of Chicago has been named manager of the Northern sales division. Like Mr. Woodburn, whom he succeeds, he has had an outstanding sales record since joining Norwich in 1934. His appointment in 1938 as manager of the mid-western sales district was followed in 1940 by his promotion in 1940 to assistant manager of Norwich's West Central sales division.

Fistere Elected Mallinckrodt V.P.

Joseph Fistere, director and secretary of the Mallinckrodt Chemical Works, has been elected vice president of the company. He will also continue in the position of secretary.

Mr. Fistere joined the company in 1942 after 20 years of sales and management experience with the National aniline Division of the Allied Chemical and Dye Corp.

Milky Way Taken Over by Martin

Katherine Martin, Inc., has taken over the Milky Way Cosmetic line, formerly of Michigan. The New York office is at 118 E. 28 St.

Officers and directors of Katherine Martin, Inc. are: Miss Martin, president; Dr. Henry Goldschmiedt, vice president, and Helen Lind, secretary and treasurer.

Mary Neary Celebrates 35 Years with Fritzsche

Mary G. Neary, secretary to president F. H. Leonhardt of Fritzsche, Brothers, Inc., was the guest of honor

MARY NEARY

at a luncheon held July 15 at the Waldorf-Astoria in celebration of her 35th anniversary with the firm. Fellow employees presented Miss Neary with a gold wrist watch, and with gold dress clips to match.

Dr. Hiebert Promoted

Promotion of Dr. J. Mark Hiebert, vice president, to the executive management of Sterling Drug Inc., assisting the president in the operation of the business, has been announced.

Dr. Hiebert, who was in charge of the Frederick Stearns & Co., division, Detroit, has been transferred to Sterling's main office in New York. He will assist James Hill Jr., president, in the handling of all operational details of the business and will participate in the development of policy.

Philip B. Hofmann, (left) president of Ortho Pharmaceutical Corp. goes over plans for Ortho's new English plant with Garland Fiske (center) production manager of Ortho in Canada and Reginald George, of London who has been appointed managing director of the new plant.

ADVERTISEMENT—*This entire page is a paid advertisement* *Prepared Monthly by U. S. Industrial Chemicals, Inc.*

U.S.I. CHEMICAL NEWS

August ★ A Monthly Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1947

New Dye Method For Testing Cotton Fiber Maturity Is Developed

A differential dyeing procedure which demonstrates the maturity of cotton fibers has been developed in this country, it was announced recently. The method is based on the facts that mature cotton fibers are thick-walled and immature ones thin-walled, and that thick- and thin-walled fibers take the same dyes differently and also take different dyes. The test is said to be made easily on unprocessed cotton lint in laboratory or dyehouse.

A mixture of dyes of contrasting colors, red and green, and of different dyeing properties, is used with a standard method of dyeing. The thick-walled, or mature, fibers dye definitely red, whereas the thin-walled fibers, commonly called immature, dye a distinct green. As a result, differentiation is easy.

The test may be used to test the progress of fiber development on seed, for comparing commercial cottons of different growth varieties, or to indicate to cotton mills certain lots of cotton which require special care.

Copies of Illustrated U.S.I. Booklet Available

An interesting 48-page booklet entitled, "U.S.I. in the World of Chemistry," describing the use of U.S.I. chemicals in modern industry is now available.

Full color pictures and charts show how solvents, alcohols, resins and other chemical building blocks are utilized in the everyday commodities of commerce. Copies may be obtained by writing to the New York office of U.S.I. on your letterhead.

New Method Slashes Moisture Assay Time

A method for the determination of moisture in certain bituminous mixtures which slashes almost three hours from standard analysis time has been developed by a mid-western government bureau.

In this test, samples of a bituminous mixture are shaken with Solox, U.S.I.'s proprietary alcohol-type solvent, which is miscible in water. The resulting effect is manifested by a change in gravity of the Solox-water solution which may be determined by a sensitive hydrometer. Previously prepared curves are consulted to obtain the moisture value of the bituminous mixture. Accuracy is usually plus or minus .1 to .3 per cent when the original material contains 4 per cent moisture or less. Time of analysis is stated to be 20 minutes or less, compared with 2 to 3 hours by conventional methods.

Solox is one of the most versatile and widely used of all solvents. It is finding an ever increasing market as a general solvent for innumerable industrial purposes. It has faster and better solvent power than completely denatured alcohol, has a mild non-residual odor, and is readily available for any manufacturing or other lawful purpose with only minor restrictions.

U.S.I. Boosts Diethyl Oxalate, Diethyl Carbonate Production

Move is Made to Meet Increasing Demands for These Versatile Chemicals in Lacquer Formulations and Organic Syntheses

Requirements for diethyl carbonate and diethyl oxalate, increasing steadily since the end of World War II, have made it necessary for U.S.I. to step up production of these versatile chemicals and to put plans into operation for expanding its manufacturing facilities. Diethyl carbonate is used in special-purpose lacquers and as a raw material for a wide variety of organic syntheses. Diethyl oxalate has found its greatest use in organic syntheses, but it also is employed today to extend and replace nitrocellulose solvents.

Diethyl Carbonate Has Many Applications

Originally used for lacquers which require a pure neutral solvent—lacquer for radio tube cathodes is an example—diethyl carbonate is now employed in many diverse types of organic syntheses. These range from manufacture of comparatively little-known compounds such as ammeline (2-hydroxy-4, 6-diamino-1, 3, 5-triazine), to the preparation of pharmaceutically-important barbiturates.

Diethyl carbonate may be employed in Claisen condensations to react with esters of aliphatic acids, with esters of aryl substituted aliphatic acids, and with ketones and cyanide derivatives. It may also be reacted with a Grignard reagent to give the next higher acid, and with primary and secondary amines to give the corresponding substituted ureas. Among the other products produced with the aid of diethyl carbonate are: sodium ethyl carbonate, urethan, urea and carbohydrazide.

Diethyl carbonate is considered as nearly a neutral solvent as it is possible to make. It is a medium evaporating solvent, characterized by the desirable features of mild odor and

(*Continued on next page*)

Claims New Process Will Develop Film in 15 Seconds

A high-speed process for developing photographic film that makes it possible to project an image on a screen only 15 seconds after a picture is taken was announced recently.

The exposed film is treated with hot solutions in a special processing cup which restricts the liquids to a small circular area on the film. The process is carried out at approximately 60°C., development requiring only three to four seconds and fixing six. The spent solutions are quickly removed by suction, and the nearly-dry developed and fixed film is fed into the projection system where an air-pressure gate completes the drying, cools the film, and holds it flat while it is being projected.

If it is desired to project a positive rather than a negative, a strong dichromate bleach is used in place of the fixing bath, and reversal processing can be achieved in less than 10 seconds. In a typical machine, the film is drawn through a series of tanks containing developing, rinsing, fixing, and washing solutions at a uniform rate so that a given portion of film remains in each bath about 5 seconds. Drying requires about 15 seconds. Total processing requires about 35 seconds and yields image quality comparable to that obtained in normal motion picture processing machines in 35 or more minutes.

High fidelity video reproduction is made possible by the new-type television camera said to be as sensitive as the human eye. To prevent current leakage, cathodes in the camera tubes are impregnated with a lacquer containing diethyl carbonate.

ADVERTISEMENT—*This entire page is a paid advertisement*

August ★ **U.S.I. CHEMICAL NEWS** ★ 1947

Diethyl Carbonate, Diethyl Oxalate

(*Continued from page 1*)

high stability. It is useful wherever a pure neutral lacquer solvent is required.

Diethyl Oxalate is Nitrocellulose Solvent

Diethyl oxalate is an excellent solvent for nitrocellulose and has a slow evaporation rate. While its applications have previously been limited to specialized fields, due to its tendency to hydrolyze, it is now being used very successfully where special care is taken to eliminate all possible water from the formulation. It is recommended that, wherever possible, diluents with high aromatic content be used, inasmuch as diethyl oxalate has a much higher dilution ratio with aromatic hydrocarbon diluents than it has with petroleum naphthas.

Diethyl oxalate offers many possibilities in chemical syntheses. Here are a few typical examples: With ethyl acetate in the presence of sodium ethoxide (sodium ethylate) it yields ethyl sodium oxalacetate. With acetone in the presence of sodium ethoxide, it yields xanthochelidonic acid ester (acetone dioxalic ester) from which the ethyl ester of chelidonic acid may be obtained. Gamma-pyrone may in turn be obtained from this latter substance.

With zinc and alkyl iodides, it gives ethyl esters of dialkylglycolic acid. With sodium amalgam, the alcoholate of ethyl glyoxylate, diethyl oxomalonate, ethyl *dl*-tartate, and the ethyl ester of desoxalic acid may be obtained, and by reacting with phenylhydrazine, the phenylhydrazone of ethyl glyoxylate.

Electrolytic reduction gives ethyl glyoxylate. With sodium ethoxide and urea, it gives parabanic acid (oxalylurea). It is used to manufacture phenobarbital. With ortho-nitrotoluene and sodium ethoxide there results ethyl o-nitrophenylpyruvate. By distilling with an alcohol other than ethanol, the oxalic ester of the alcohol may be obtained through alcoholysis.

HEAVIER POULTRY PRODUCED WITH FERMENTATION SOLUBLES IN BROILER FEED

In raising broilers it is essential to produce the maximum quantity of poultry meat at the lowest possible feed cost. Listed below is a ration which has been recommended by a leading university's experimental station. It has been used with success by feed manufacturers and individual farmers.

Ground yellow corn	580
Ground heavy oats	300
Wheat middlings	200
Wheat bran	250
Soybean oil meal	200
Corn gluten meal*	50
Alfalfa leaf meal	100
Meat scraps	100
Fish meal	100
Manganese sulphate	¼
Fermentation solubles (80 micrograms riboflavin per gram)**	25
Dried milk product***	50
Ground limestone or oyster shell	25
Bonemeal or defluorinated rock phosphate	10
Salt	10
Vitamin A and D feeding oil or its equivalent (400 units D per gram)	4

*Corn gluten meal or other vegetable protein meal such as peanut meal. Additional soy bean meal may be substituted when other vegetable protein are not available.

**U.S.I. manufactures Curbay BG, a dried fermentation soluble product which contains 80 micrograms of riboflavin per gram of material.

***This may be omitted if riboflavin or riboflavin substitutes are available. U.S.I. offers two natural riboflavin products in its line: U.S.I. Riboflavin Concentrate No. 85 (85%) and U.S.I. Riboflavin Mixture No. 1 (1 gram per ounce).

New Seed-Disinfectant

A new chemical seed-disinfectant, said to control insects that attack seeds in storage, has been announced.

TECHNICAL DEVELOPMENTS

Further information on these items may be obtained by writing to U.S.I.

A photosensitive glass, which is said to be capable of receiving permanent colored photographic prints with three-dimensional effects, has been announced. **(No. 224)**

USI

A new-type spark-resistant flooring, used during the war in munition plants and gun-turrets, is said to be static conductive. **(No. 225)**

USI

A new synthetic detergent, can be used on all types of washables in both hard and soft water, according to the manufacturer. **(No. 226)**

USI

To measure moisture in any substance, a direct-reading electronic moisture meter has been placed on the market. It is said to provide the percentage of water automatically in 15 seconds. **(No. 227)**

USI

A new anti-corrosive finish, aimed at protecting metal, wood, and concrete against moisture, acids, and other disintegrating elements, is claimed to dry by evaporation and to be free of paint odors. **(No. 228)**

USI

A true-polyvinyl chloride paste-forming resin, claimed to be the first of its type to be made in this country, is said to eliminate the necessity for heavy and expensive equipment in coating operations. **(No. 229)**

USI

To fray-proof rugs, a new rubber-like compound has been developed, which the makers say is waterproof and can be applied to any type of rug. **(No. 230)**

USI

A polystyrene that withstands boiling for short periods of time and has other improved physical and chemical properties has been developed. It is claimed to have an unlimited color range. **(No. 231)**

USI

A new non-flammable paint remover is rapid, requires no neutralizing after-use, and contains a plastic retarder to keep the remover on upright and overhead surfaces, according to the manufacturer. **(No. 232)**

USI

To improve leather quality, a new coating for chrome- and vegetable-tanned leathers is being marketed. It is said to reduce shrinkage and to provide added smoothness in grain. **(No. 233)**

USI

U.S.I INDUSTRIAL CHEMICALS, INC.

60 EAST 42ND ST., NEW YORK 17, N. Y. U.S.I. BRANCHES IN ALL PRINCIPAL CITIES

ALCOHOLS
Amyl Alcohol
Butanol (Normal Butyl Alcohol)
Fusel Oil—Refined
Ethanol (Ethyl Alcohol)
Specially Denatured—all regular and anhydrous formulas
Completely Denatured—all regular and anhydrous formulas
Pure—190 proof, C.P. 96%
Absolute
*Super Pyro Anti-freeze
*Solox proprietary Solvent
***ANSOLS**
Ansol M
Ansol PR

ACETIC ESTERS
Amyl Acetate
Butyl Acetate
Ethyl Acetate
OXALIC ESTERS
Dibutyl Oxalate
Diethyl Oxalate
PHTHALIC ESTERS
Diamyl Phthalate
Dibutyl Phthalate
Diethyl Phthalate
OTHER ESTERS
*Diatol
Diethyl Carbonate
Ethyl Chloroformate
Ethyl Formate

INTERMEDIATES
Acetoacetanilide
Acetoacet-ortho-anisidide
Acetoacet-ortho-chloranilide
Acetoacet-ortho-toluidide
Acetoacet-para-chloranilide
Alpha-acetylbutyrolactone
5-Chloro-2-pentanone
5-Diethylamino-2-pentanone
Ethyl Acetoacetate
Ethyl Benzoylacetate
Ethyl Alpha-Oxalpropionate
Ethyl Sodium Oxalacetate
Methyl Cyclopropyl Ketone
ETHERS
Ethyl Ether
Ethyl Ether Absolute—A.C.S.

FEED CONCENTRATES
Riboflavin Concentrates
*Vacatone 40
*Curbay B-G *Curbay Special Liquid
ACETONE
Chemically Pure
RESINS
Ester Gums—all types
Congo Gums—raw, fused & esterified
*Aroplaz—alkyds and allied materials
*Arofene—pure phenolics
*Arochem—modified types
Natural Resins—all standard grades
OTHER PRODUCTS
Collodions
Ethylene Glycol
Nitrocellulose Solutions
Ethylene
Urethan
dl-Methionine

*Registered Trade Mark

Printed in U.S.A.

Strong Cobb Reorganized

George Miller, president of Strong Cobb and Company, Inc., and James S. Adams, president of Standard Brands Inc., have announced the sale of assets of the Strong Cobb Corporation.

GEORGE MILLER

Strong Cobb and Company was founded in 1833. A new corporation has been organized with Mr. Miller as president and will continue in business under the same name. Members of the new board of directors are Wesley A. Stanger, Jr., Chairman, George Miller, Arthur Gwynne, Frederick H. Brandi, John Fisher and William W. Hosler.

Mr. Miller has been active in the drug field for more than twenty-five years. During the past seven he has been president of Strong Cobb and Company. For two and one-half years he was general manager of Standard Brands' pharmaceutical division.

Simpson Made Ad Manager

Lorne Simpson has been made advertising manager of Ayerst, McKenna

LORNE SIMPSON

& Harrison, Ltd., a subsidiary of American Home Products Inc. He was recently transferred from the company's Canadian division where he filled a similar position.

Toni Appointments

The Toni Company of St. Paul, manufacturers of home cold waves has announced the appointment of two new division managers.

Ralph G. Much will be in charge of the Chicago division and W. E. Balcom has been named head of the Minneapolis division.

Herchelroth off Again

J. Hilary Herchelroth is off again on another one of his long jaunts, this time to France where he will spend four weeks at the factory of Cresp Martinenq.

Pneumatic Scale Promotion

Pneumatic Scale Corporation, Ltd., North Quincy, Mass., has elected Wallace E. Coughlin vice president in charge of the New York Branch office, located at 117 Liberty St.

W. E. COUGHLIN

Mr. Coughlin joined the company in 1920 and was employed in production for several years before joining the sales force. He served as a sales engineer throughout the Middle and South Atlantic states since 1929.

Nyal Names Ricketts

M. M. Ricketts has been named vice president in charge of sales for the Nyal Company and the Jamieson Pharmacal Company. The two companies, both recently acquired by the Heyden Chemical Corporation, New York, will have separate sales organizations.

Before assuming his new position, Mr. Ricketts was general sales manager of all proprietary and ethical products of William R. Warner & Co. Previously he had been associated with Standard Laboratories, a Warner subsidiary, Wyeth Inc., and American Home Products.

Dr. Coghill Honored

Dr. Robert D. Coghill, director of Abbott Laboratories research, was one of seven University of Kansas alumni who were presented awards for distinguished service during the Univer-

DR. R. D. COGHILL

sity's 75th annual commencement service.

As chief of the fermentation division, U. S. Department of Agriculture from 1939 to 1945, he was instrumental in the development of important advances in the production of pencillin and he led in the dissemination of technical information among laboratories all over America resulting in ultimate success.

Florasynth Moves in L. A.

Florasynth Laboratories, Inc. have moved into its new location at 588 Mateo St., Los Angeles 13.

Ackley Joins Hudnut

Robert R. Ackley has joined Richard Hudnut as director of research. He was formerly the director of the industrial

ROBERT ACKLEY

division of the Onyx Oil & Chemical Company.

Mr. Ackley will be responsible for cosmetic research and development under the direction of Raymond E. Reed.

Ph. Chaleyer Inc.

Creative Ability for Perfumes
of Individuality and Distinction

160 EAST 56th STREET, NEW YORK 22, N. Y.

Wiedman Resigns From Dreyer

Henry A. Wiedman resigned August 8 as vice president of P. R. Dreyer, Inc. He had been connected with the firm for twelve years and has been identified with the essential oil industry for the past thirty years. His plans for the future are as yet undecided.

Pfizer to Take Over Citro Chem.

John L. Smith, president of Chas. Pfizer & Co., Inc., and Charles P. Walker, Jr., president of Citro Chemical Company of America have announced the Chas. Pfizer & Co., are conducting negotiations with Emerson Drug Company for the purchase of Citro Chemical Company, a wholly owned subsidiary of Emerson.

For the time being it is intended that the Citro Chemical Company will function as a separate unit of Pfizer, and operations will continue under Mr. Walker and his present staff.

Dr. Torres Visits Here

Dr. Carlos A. Torres, managing director of Perfumeria DuBarry, S. A., Buenos Aires, hopes to visit friends in the trade both here and abroad in a month tour he is now taking.

Coleman Leaves Mallinckrodt

Stewart W. Coleman has resigned as vice president of the Mallinckrodt Chemical Works, St. Louis. He joined the company in 1939 as merchandise manager and became general sales manager in 1941. He was then appointed vice president in charge of sales in 1943.

McKesson & Robbins Promote Three

Roy P. Meyer, manager of the Milwaukee division of McKesson & Robbins, Inc., has been promoted to manager of the company's Chicago division. Mr. Meyer's position as manager in Milwaukee will be filled by Math T. Lauer, who has been sales manager of the division. Edward J. Schmideler, assistant sales manager, has been named sales manager of the division.

Mr. Meyer, who started with the Minneapolis Drug Company, has been associated with McKesson & Robbins in sales executive capacities since 1930. As manager at Chicago he will head one of the largest divisions in the McKesson national wholesale drug and liquor organization.

Mr. Lauer began work as an apprentice in a Chicago drug store in 1905, subsequently becoming owner. He became associated with the H. K. Mulford Company, and with Standard Laboratories. He was later employed by Peter Van Schaack & Sons, Chicago wholesale druggists, where he was assistant sales manager. He joined the McKesson organization in 1940 as merchandising counsellor, and in 1942 was transferred to the Milwaukee division as merchandising manager.

Mr. Schmideler, after graduating from Milwaukee High School began work with the Milwaukee Drug Company and joined McKesson & Robbins working up to be assistant sales manager in Milwaukee.

B. D'Ancona Returns From Europe

B. D'Ancona, secretary of Polak & Schwarz and formerly general manager of the company's Paris perfume department has returned from a two months' trip to Europe where he visited mainly in France. He also went to the parent company in Zaandam, Holland and the plant in England.

The treasurer of Polak & Schwarz, Charles De Vries is at the present on a special trip to South America, where he will stop at Rio De Janiero and Buenos Aires.

Gets U. S. Sales Rights of Pinaud

The American sales rights to the French line of Pinaud Toiletries, have been taken over by Ed. Pinaud, Inc.

The Pinaud essences will continue to be compounded in France and imported here. The American company, in acting as exclusive U. S. sales agents, will bottle, and distribute all the Pinaud line from the new plant at 1041 Prospect Ave., Bronx, N. Y. Sales offices will be located at 902 Bway, New York.

Administration will continue under the direction of Pierre A. Coblentz, vice president and general manager. Herbert D. Rosenthal, vice president will remain in charge of sales. Other officers of the new company are Joseph Lindemann, president and Louis Naidech, treasurer.

Avon Expansion

Avon Products Corp., has opened a general sales office in Chicago. Melvin Davis, Chicago manager, said that the firm has leased 8,300 square feet on the twenty-first floor of the Merchandise Mart to be occupied by the midwest sales force.

Sharp & Dohme Get Safety Award

Sharp & Dohme, Inc. have been awarded the National Safety Council's award for the outstanding record in accident prevention.

The company's Philadelphia plant operated a total of 1,463,321 man-hours without a lost time accident between May 12, 1946 and January 7, 1947. The company was also commended for its low frequency rate of accidents, which is only about one third the national average for the pharmaceutical division of the chemical industry.

The six fishermen pictured above were taken at the Sterling Drug meeting at Montauk before they embarked to try their luck off shore. From left to right they are: Dr. J. Mark Hiebert; Edward S. Rogers; Louis A. Hoffman; Dr. Theodore G. Klumpp; F. J. Zimmerman; W. H. Burgard, kneeling in front.

Penick Research Grants

The establishment of five research grants and the extention of a sixth has been announced by S. B. Penick & Company.

A grant has been made to the University of Illinois for the study of compounds from vegetable sources or of therapeutic agents will be established under the direction of Dr. Roger Adams.

At the University of Wisconsin under the direction of Dr. S. M. McElvain, and at the University of California at Los Angeles under the direction of Drs. William G. Young and T. A. Geissman, similar grants have been made.

A grant has been made to the University of Harvard, Department of Pharmacology, School of Medicine, where Dr. Otto Krayer will study the pharmacological action of certain botanical specimens of South American origin.

For the study of Vitamin-P like substances a grant was made to Drs. E. M. MacKay and William G. Clark of the research department of the Scripps Metabolic Clinic, La Jolla, Calif.

And to the University of Michigan for the study of therapeutic value of mixed estrogens from natural sources administered to the intact skin as an inunction, by Dr. E. C. Pliske, has been extended to the first of January 1948.

Blaw-Knox Division in New Hdq.

The Chemical Plants division of Blaw-Knox Company has moved from its wartime headquarters at 5001 Baum Blvd., Pittsburgh to 321 Penn Ave., in the same city.

In announcing the move, E. W. Forker, head of the division said the building had been completely remodeled to meet the company's growing needs.

Conversion Calculator

Available on request to members of the trade, a conversion calculator for laboratory use and simplified for every production department, has been designed and printed by Polak's Frutal Works, 36–14 35 St., Long Island City, N. Y.

Hoffman-La Roche Opens new Branch

Hoffman-La Roche, Inc., and Roche Organson, Inc., Nutley, N. J., have opened a new branch office at 3208 David Broderick Tower, 10 Witherall St., Detroit. Peter P. Zambas, who has been associated with Roche for twelve years, will be in charge of the office.

Lucian Taylor

Lucian Taylor, assistant general sales manager of Owens-Illinois Glass Company, died July 1 in a Toledo hospital after a brief illness. He was fifty-three.

Mr. Taylor was born in Alton, Ill., in 1894. During World War I, he served overseas as a first lieutenant in the infantry. He had been with Owens-Illinois since 1912, serving first as a salesman and branch manager, he was named assistant general sales manager in 1938.

LUCIAN TAYLOR

Greek Representative

George E. Georgiades of Thessaloniki, Greece is interested in representing well-known lines of dental creams and Pharmaceutical products. Address inquiries to George E. Georgiades, Katholikon 3, P.O.B. 200, Thessaloniki, Greece.

Aromatics Course

The New York University's Division of General Education is offering this fall a course in "Aromatics" designed to evaluate perfumes with a practical laboratory class for commercial purchasers and other users of perfume oils.

The instructor will be Samuel Klein at present perfumer for Synfleur Scientific Laboratories, Inc. The course offers basis training of the sense of smell. Standards of comparison will be established through study of ten odor types in various price ranges. Some previous experience with perfume oils is necessary with registrants in the course. Cost of the course is $30 dollars plus a $10 laboratory fee. The course starts September 30 and continues until January 27, with 15 sessions being held every Tuesday night from 8–10. For additional information communicate with rofessor S. G. Roth, Division of General Education, New York University, Washington Square, N. Y.

New Bristol-Myers Branch

Bristol-Myers Company has opened a new Southern branch office at 145 Forrest Ave., Atlanta. The branch will be in charge of Hayward C. Wheeler, with Robert O. Slaughter as assistant manager.

Mr. Wheeler was born in Kansas and graduated from Kansas University. He has been with Bristol-Myers since 1926 as a sales representative.

Mr. Slaughter, a native of Waynesboro, Miss., joined the company in 1933 as a sales representative. He attended Emory University, Atlanta, and afterwards became a registered pharmacist and at one time operated a retail drug store in Waynesboro.

Heyden Acquires Detroit Firm

Heyden Chemical Corp., has acquired the Garwood Company a drug manufacturing firm in Detroit. Heyden plans to expand operations at the Detroit plant, with emphasis on production of bulk orders received by other recently acquired subsidiaries, the Jamieson Pharmacal Company and Nyal Company.

Samuel Cohn

Sameul Cohn, eighty, president of Ferdinand Gutmann & Co., bottle cap manufacturers, died July 13, at his home, 336 Central Park West, New York.

The Company was organized in 1902 by Mr. Cohn and a brother-in-law, Ferdinand Gutmann, Mr. Cohn serving as treasurer until the retirement of Mr. Gutmann in 1945.

He was born in New York, and educated at the City College of the City of New York.

Mrs. W. M. Bristol

Mrs. Mary Lee, widow of William McLaren Bristol, founder of the Bristol-Myers Company died at her summer home at Bay Head, N. J. She was eighty-seven years old.

Mrs. Fishbein

Mrs. Fannie Fishbein, mother of Doctors Morris and William Fishbein died at her home in Chicago, July 15. Her age was eighty-five.

Dr. Morris Fishbein, who is editor of the Journal of the American Medical Association, is at present in South America on a business trip for the AMA.

Sylviola

Exotically oriental in mood, this new Dow Aromatic Specialty contributes a note of precious woods and orris violet for modern oriental effects. Exceptionally versatile, Sylviola will serve a wide and varied range of uses. It conforms, of course, to Dow's exacting standards of odor fidelity and uniformity. A request on your company letterhead will bring working sample and complete details.

THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN

50th Anniversary 1897-1947

DOW

Aromatics

INDISPENSABLE TO THE CREATIVE PERFUMER

Oxzyn

SERVES THE TRADE EXCLUSIVELY

WITH QUALITY

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COMPACTS | ROUGE | POWDER | MAKEUP

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WE ALSO MANUFACTURE POWDER PUFFS, VANITY PUFFS, LOOSE SIFTER POWDER DEVICES AND SPECIAL LAMSDOWNE PUFFS

PRODUCTS MADE IN CONFORMITY WITH THE PURE FOOD, DRUG AND COSMETIC ACT
PRODUCTS LIABILITY INSURANCE CARRIED

OXZYN COMPANY

NEW JERSEY OFFICE
ONE PLEASANT AVENUE
CLIFTON

MANUFACTURING
Cosmetics of Quality
SINCE 1877

CANADIAN OFFICE
54 OSLER AVENUE
WEST TORONTO, ONTARIO

UP-TO-DATE FACTS ABOUT
SONNEBORN
White Oils, Petrolatums and Specialties
that will help you in cosmetic product development

Leading cosmetic manufacturers have long standardized on SONNEBORN White Oils, Petrolatums and Petroleum Specialties . . . convincing evidence of the unsurpassed Quality, Purity and Stability of these highly refined ingredients, a few typical end-uses of which are shown at the right.

The broad research facilities of the SONNEBORN laboratories, backed by 65 years of refining experience, are available for aid in solving current production problems and in the development of new cosmetics.

•

SONNEBORN PRODUCTS FOR QUALITY COSMETICS

WHITE MINERAL OILS

CARNATION • KLEAROL
KAYDOL — U. S. P. Heavy • ORZOL — U. S. P. Heavy • PROTOL — U. S. P. Heavy • ERVOL — U. S. P. Light • BLANDOL — U. S. P. Light

PETROLATUMS U. S. P.

TYPE I: Medium Consistency – White Protopet Yellow Protopet and other colors
TYPE II: Soft Consistency – White Fonoline – Yellow Fonoline
TYPE III: Medium Consistency with High Melting Point – White Perfecta

SPECIALTIES

DEO-BASE – Light hydrocarbon distillate refined to complete freedom from kerosene odor
SONO-JELL – Complete series for liquefying cleansing creams, pomades, etc.
TRI-OL – Base for soapless oil shampoos and soap-sensitive skin cleansers
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Check the coupon (marking appropriate key letters) to receive free technical data on subjects of most immediate interest to you.

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For 50 years Stokes has designed and built tablet machines and complete auxiliary equipment for leading pharmaceutical manufacturers all over the world. We are, therefore, aware of the importance of inter-machine teamwork in producing highest quality products at low cost.

This experience enables us to offer you equipment that is simple in design, rugged in construction . . . outstanding in operating efficiency and economy . . . readily mastered by semi-skilled help . . . equipment that meets every requirement for modern pharmaceutical manufacture.

We suggest you investigate Stokes equipment, and we invite you to make use of our confidential consulting and laboratory services in the preparation of special formulae and materials for tabletting.

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STOKES PHARMACEUTICAL EQUIPMENT INCLUDES: *Tablet machines for production from 100 to 1500 tablets per minute, mixers, granulators, drying closets, sifters, drug mills, coating pans, tube filling and closing equipment, water stills, vacuum drying and extracting equipment, etc.*

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Production Forum

By Francis Chilson

Industrial Consultant

Factory Lighting

In spite of increasing knowledge about good lighting, the average plant today—even the new ones—is inadequately and improperly lighted. I've seen some new fluorescent jobs that were terrible. It is important not merely to provide a sufficient quantity of light, but the light must have the right quality, the proper distribution and diffusion; the proper direction and color. Light should be diffused evenly over entire working areas so that there are no light contrasts whatsoever.

In many cases light is focused at working points with shade contrasts so that when a worker looks up, immediate eye adjustment is necessary. This causes eye strain and fatigue, and results in loss of production.

Seeing is not an instantaneous process as the old time gamblers know. There is scientific truth in the old adage that the hand is quicker than the eye. The hand is very much quicker than the eye as a matter of fact. Consequently, when because of variable light quantities and qualities, the worker is obliged to make eye adjustments every time he turns his head, imperceptible but accumulative eye-strain is caused and fatigue increases sharply. Eye fatigue unconsciously increases nervousness, irritability; it causes headaches, and it affects cooperation, accuracy, safety, and general efficiency.

A well lighted area shows no shadows anywhere. When shadows alternate with intensely lighted areas, eye fatigue is bound to result. It is for this reason I have always favored adequate and uniform artificial lighting as opposed to natural lighting, because natural lighting is highly variable. Natural lighting, especially direct sunlight on exposed windows causes glare which intensifies the quantity of light. Reflected glare is almost as bad as direct glare. Reflected glare can come from too highly polished surfaces or from exceptionally high gloss paints—white especially.

In the maintenance of uniform lighting conditions, lamp maintenance itself is highly important because improperly maintained lamps can lose as much as fifty percent of their value. Likewise, voltage drops and power losses due to improper wiring or overloads can affect the value of lighting over a given area.

The following figures have been established as being sufficient for the areas indicated:

Offices	50 to 60 candles	at 3 feet
Laboratories	50 to 60 candles	at 3 feet
Warehouses	15 to 20 candles	at 3 feet
Machine Shops	60 to 70 candles	at 3 feet
Packaging Departments	60 to 70 candles	at 3 feet
Drafting Rooms	80 to 100 candles	at 3 feet
Packing Room	20 to 30 candles	at 3 feet

The point to be emphasized is that these light values should be uniform all over whole areas. The design and arrangement of lamps should be such as to dispel shadows and contrasts. Even in a warehouse where relatively little light is needed, the same diffusion is necessary wherever men must work constantly.

Most of us agree that sufficient light should be provided to enable workers to function effectively, yet only a few concerns in the trade provide regular eye examinations. Therefore, as a matter of regular company policy, free eye examinations should be provided for every worker. We should then make certain that our lighting and coloring are correct in all working areas and we should take all possible steps to prevent eye injuries due to dust or fumes. Another cause of eye injury is exposure to radiant energy. A considerable number of firms in the trade are using infra-red dryers which are a prime source of eye injury unless the workers are protected by suitable goggles. Eye injuries also may be caused by communicable diseases contracted in dirty washrooms. Workrooms and sanitary facilities cannot be kept too clean.

All workers likely to be exposed to any condition which might cause an eye injury should be equipped with goggles, fitted with ground lenses to their own eyeglass prescriptions, and equipped with plastic side guards. Many manufacturers have complained to me that though they provide goggles for their workers, the workers do not wear them. When you look at some of

the horrible contraptions that pass as goggles, it's no wonder the worker will risk his eyesight rather than wear such contraptions. Many goggles are made of ordinary plate glass and persons who have to wear glasses regularly, have difficulty in seeing through them. Likewise, many goggles are designed so heavy and cumbersome that they cause acute discomfort to the worker when they are worn for any length of time. From an aesthetic point of view, most goggles are awful, which causes a rebellious attitude on the part of female workers especially. Goggles need not weigh a ton, they need not be aesthetically repellent in design, and they need not be so heavy as to cause discomfort when they are worn.

Testing Your Management I. Q.

The 100 questions given below were compiled by Ellis H. Woolley, Training Supervisor of the Naval Supply Depot at Oakland, California, and first published in "Personnel." The purpose of the questions given here is to test operating executives as to their own managerial abilities. The first group of questions concern the principles of management; the second group, the relationships of supervisor and worker; and the third, personal development of the supervisor.

A top executive should score at least 90. The divisional superintendent should score at least 70, and a good foreman should score at least 60. Each person taking the test should score himself and then check the answers according to the psychologist who compiled the test and if your score doesn't come up to the averages indicated, you're not so hot.

"Use of words in reading questions:

1. Complete the following alliteration:
   An efficient and capable administrator, manager, or supervisor keeps clearly in mind that the parts of management are materials, machines, methods, money, and.....
2. Supply the missing word:
   Some managers, administrators, and supervisors interpret.....as meaning "doing *for*." This interpretation is entirely inadequate, as it involves action on the part of but one person, while actually *the word* involves the coordinated action of two or more persons: it means "working *with* others."

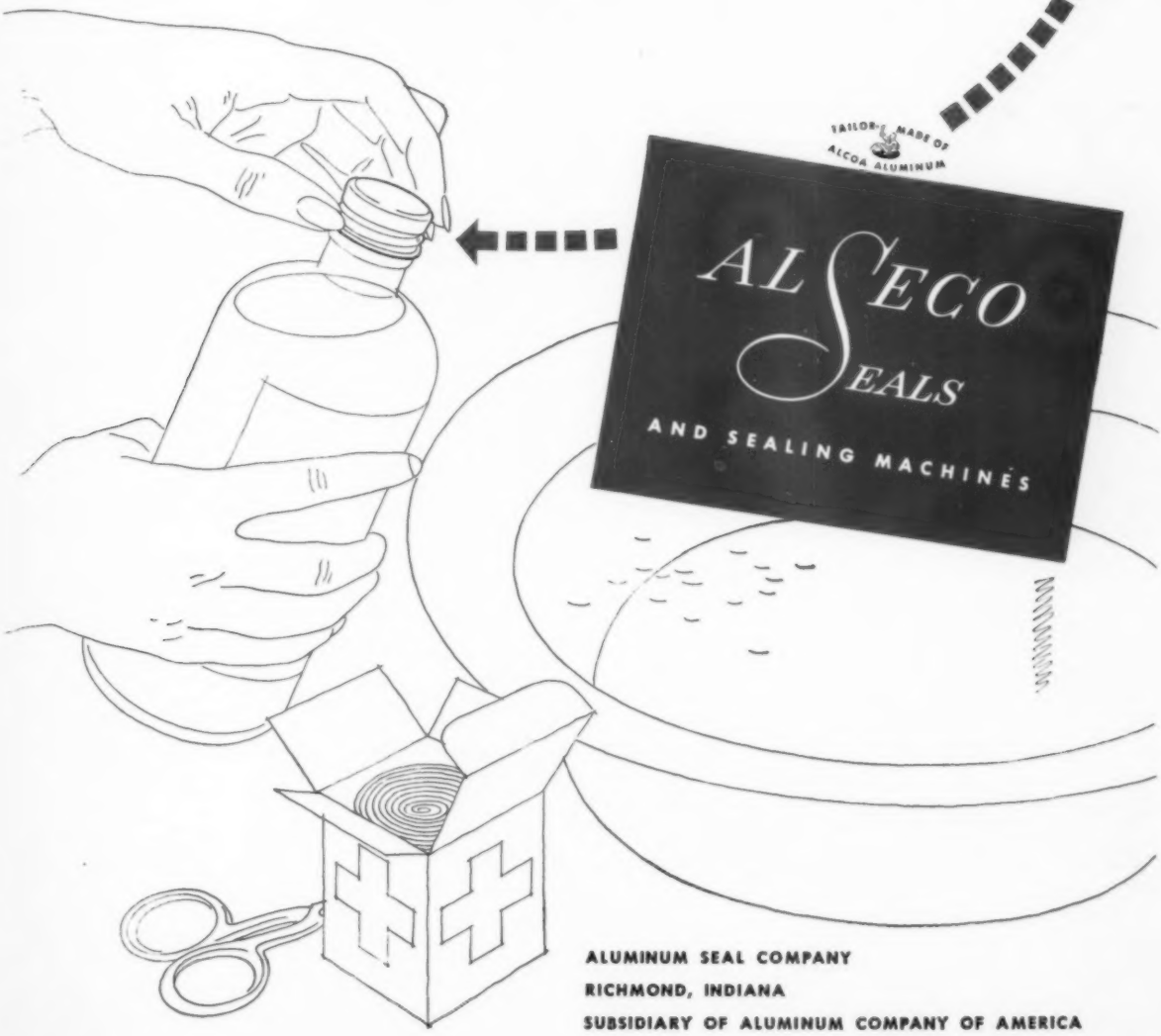
Match the following words by selecting those most appropriately reflecting the primary factors of each:

3. Organization ( ) Policies
4. Management ( ) Charts
5. Supervisor ( ) Interpretation

Multiple-choice questions—select one by letter:

6. The principles of scientific management as recognized in American Industry were developed.....
   (a) in ancient times
   (b) during the recent war
   (c) early in this century
7. The scientific method of modern management is identical to the method of.....
   (a) the seven liberal arts (b) physics (c) religion
8. Certain management "methods" in particular enterprises draw much criticism, when criticism should rather be levelled at.....
   (a) stubborn stockholders
   (b) over-capitalization
   (c) faulty organization pattern
9. The purpose of organization is to determine relationships and contacts together with.....
   (a) Working hours and pay scales
   (b) limits and scope of responsibilities
   (c) profits and losses
10. Records and system are both essential to organization. Records are usually considered more so because they.....
    (a) require less "professional" development
    (b) take up file space
    (c) are more tangible
11. Concise reports that serve some really worthwhile purpose partially discharge responsibilities of.....
    (a) subordinates (b) customers (c) stockholders
12. The line-and-staff type of organization is an outgrowth of.....
    (a) the laws of Moses and Aaron
    (b) modern industrial development
    (c) a short cut to efficiency
13. Organization charts cannot achieve the best results without the character of.....
    (a) dualism (b) specialization (c) functionalism
14. Within the limits set up in the position description chart, supervisors are part of.....
    (a) worker groups
    (b) management
    (c) plant equipment
15. When instructions and orders follow the lines of authority, it is proper.....
    (a) staff advice (b) principle (c) channeling
16. When you ask an employee instead of his supervisor about another employee's work, you.....
    (a) hurt his feelings
    (b) jump channels
    (c) create disorder
17. The major function of a supervisor is to..... management policies.
    (a) formulate (b) interpret (c) ignore
18. When a supervisor misrepresents management, he.....
    (a) jeopardizes his own position
    (b) stimulates management to get going
    (c) takes the part of the worker
19. To perform a staff function in an organization is to.....only.
    (a) give orders (b) advise (c) interpret
20. Lines of supervision should be considered as lines of authority in which.....
    (a) advice is given

Closures that women can open



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TODAY, PROFITS MUST COME FROM ECONOMIES

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AS EASY AS DIALING YOUR RADIO—Operator demonstrates method of adjusting Ross machine when changing over from one size cartoning operation to another. By setting movable units to predetermined and charted scale readings a semi-skilled operator can change from size to size in a few minutes time without dismantling the machine.

Yes, high labor and material costs are eating into the profit margins on virtually every commodity. And the only solution to today's profit problems lies in greater mechanization of operations.

Take cartoning for example. If you are still hand forming cartons, look into the assured savings that a Ross semi-automatic cartoning machine makes possible. For this machine will erect and tuck one end of a carton, ready for the load, at rates up to 240 cartons per minute.

A candy manufacturer reports that one Ross semi-automatic machine replaced ten girls forming cartons by hand. No additional overhead was involved since the forelady and a porter alternate in operating the machine.

And if you've a product that lends itself to fully automatic carton loading and sealing, check into the Ross automatic machine which almost magically erects, loads, tuck seals or optionally glue seals both ends of a carton and will even insert literature and do code imprinting.

You owe it to your firm to investigate the profit protecting possibilities of Ross cartoning machines. Use the coupon below to obtain complete information.

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Ludlow, Kentucky

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Gentlemen:

Please send, without obligation, a copy of the Ross catalog and complete engineering and performance data on Ross cartoning machines.

Company_____

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Your Name_____

(b) Industrial Relations act
(c) all orders must flow

21. Clarification of responsibilities and authority makes for strong.....
(a) policy-making
(b) advice acceptance
(c) supervision

22. An important part of every supervisor's job is to represent management accurately to the workers by.....
(a) reading the home town papers
(b) keeping them fully informed
(c) distributing the work load equitably

23. Basically, the supervisor has.....
(a) multiple responsibilities
(b) no "management" responsibilities
(c) a single duty

24. The terms *manager*, *administrator*, and *supervisor* have been used interchangeably in this quiz. This has been done purposely to.....
(a) confuse managers
(b) emphasize breadth of responsibility
(c) establish limits of supervision and management

25. If, as a result of organization charts, system, records, and reasonable work load, you are able to delegate all your routine work to others, you.....
(a) are entitled to promotion
(b) are doing all that the job offers for your talent
(c) conform to the best estimates of what a manager or supervisor should do

The following True—False questions on "The Supervisor as a Teacher" should be prefixed by a T or F:

26. The first consideration of a supervisor is development of an effective working organization.

27. An effective organization can always be built around a group of loyal employees.

28. Instruction is a tool available to the supervisor for the purpose of increasing and improving production.

29. The well-trained working force is a result of maintaining a large training department.

39. The supervisor should see that all employees are sent to training classes.

31. In planning for training, the supervisor should make a Trade Analysis preparatory to selecting those who are to be taught.

32. The supervisor must be aware of the fundamentals of learning and teaching.

33. It is an error to assume that others are equally interested in a subject that has management sanction or approval.

34. Teaching is complete only when the learner has learned.

35. Limitations of the lecture method of instruction include insufficient evidence of learner's understanding.

36. Lectures may be supplemented by questions, illustrations, and charts.

37. Small groups and individuals can best be instructed by the Direct Instruction Method.

38. Study from text and recitation can be used to extend the time devoted to the subject.

39. The number of "learning impressions" should be controlled by the instructor.

40. A unit of instruction is generally a usable division of subject matter.

41. Correctly phrased questions have value because they require active participation of the learner.

42. When the work force is constant and stable, training can be suspended.

43. The modern supervisor considers current technical information necessary to job accomplishment.

44. Training can be used to establish a strong relationship between the supervisor and the worker.

45. In training a worker, the first thing the supervisor should do is show in detail how the job is performed.

46. Another instruction rule is to emphasize how *not* to do the job.

47. A good rule to follow in giving instructions or orders is to be provide just as much information at one time as you possess, and put it in writing if necessary for emphasis.

48. There is doubtful relationship between a versatile work/force and cyclical variations in production.

49. Standardized procedures and schedules for instruction are desirable in repetitive operations.

50. The attitude of supervisors and managers toward training should be one of sincere interest and willingness to teach.

The following True-False questions are based on Factors and Development of Leadership:

51. A supervisor should make an analytical study of his responsibilities in order to develop planning, coordination, avoid weaknesses in the organization, and make effective use of people's capacities.

52. Washington, Napoleon, and Lincoln are often referred to as born leaders; the man who is not a born leader is doomed to failure.

53. A study of the actions of recognized leaders may greatly increase one's knowledge of leadership.

54. Leadership qualities include knowledge of technical and mechanical elements, and personal characteristics of people.

55. A good supervisor on a sizable project seldom delegates any of his authority to a subordinate if he anticipates satisfactory completion of the project.

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PACKING
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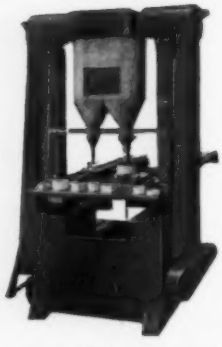

Model MH "BOND" Semi-Automatic VOLUME FILLER, WEIGHER OR PACKER

The fillers of the bottles illustrated chose the MH Bond Semi-Automatic Twin Station Filling Machine because they use a great number of container sizes in packaging a wide range of materials. The MH Bond can be easily and rapidly converted to suit each of these numerous products and containers. It is the ideal machine to volume fill, gross-weigh or pack such products as ground spices, powdered drugs, talcum, flour, soap powder, cocoa, etc. And, the MH can pack each in the most desirable containers—whether they are boxes, cans, bags, jars, envelopes or cartons.

The model MH is a speedy and precise twin station machine requiring but one operator. It can fill up to 40 containers per minute, with negligible variations in the packed weight.

The MH Bond is but one of several filling machines manufactured by **US**. Other models include semi-automatic and automatic, one, two, and four station machines—among them is the most profitable solution to your packaging problem—write **US** today.

US Automatic Box Machinery Co. Inc.

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56. A supervisor cannot maintain the respect of his men if he apologizes or admits a mistake.

57. Leadership is won or earned and is developed; it is not acquired by delegation or endowment.

58. In attempting to improve his leadership, the supervisor must look forward and must forget his past actions which have led to failure or success.

59. The supervisor's authority is final—his is the last word.

60. The supervisor can delegate duties and responsibility, but ultimate responsibility of the supervisor for the work cannot be passed on to anyone else.

61. If training is used to build a skilled and reliable working force, less of the other phases of leadership will be required of the supervisor.

62. It is all right to "alibi" to an employee if you have a good excuse.

63. The motivating factor among most employees is to be paid at the end of the week and to be be told what to do.

64. Most people are inclined to "ride hobbies" and place undue emphasis upon certain factors to the detriment of others.

65. Many shortcomings are habits engaged in without conscious thought; having been acquired, they are often mistakenly held to be inherited and incapable of change.

66. Misunderstanding is frequently the cause of imagined unfairness.

67. An employee's private problems should have preference over the work load in case of a request for leave.

68. Bullheaded people are usually conceited.

69. Most people are sensitive to any suggestion that they lack the qualities of leadership.

70. Establishing procedures and practices that save time, effort, and money are more important than building morale in an organization.

71. Delegation of authority is associated with responsibility for getting the job done.

72. A good supervisor supplies a complete plan of the job operation when delegating responsibility.

73. A supervisor can often help a dissatisfied worker if he finds out which of the worker's need or desires are not being met.

74. The more details a supervisor handles by himself, the better executive he is likely to be.

75. The major function of a supervisor is not to formulate policies but rather to interpret them and carry out procedures necessary to effect the policies in his particular unit.

Mulliple choice questions—select one by letter:

76. Orders that are extremely detailed should be .....
(a) clearly stated (b) in writing (c) illustrated

77. A supervisor can go a long way toward improving his group working conditions when he takes time to consult ..... relative to work situations.
(a) an astrolger
(b) the boss
(c) capable employees

78. When orders are given that impose entire responsibility on the shoulders of the supervisor they are known as ..... orders.
(a) implied (b) suggestive (c) command

79. To get more cooperation, it is common to use ..... orders.
(a) implied (b) request (c) suggestive

80. To a group of experienced workers, it is common to use ..... orders.
(a) implied (b) command (c) direct

81. Though money is important, there are other factors which greatly affect the employee's job performance from day to day. They are generally headed by .....
(a) wine, women, and song
(b) family and home life
(c) educational background

82. The worker is most apt to be contented if he has .....
(a) regular employment
(b) an "easy" job
(c) his home paid for

83. The most satisfying reward to the average worker is .....
(a) overtime work assignment
(b) public credit for a job well done
(c) a pay raise

84. Uncongenial surroundings cause workers to be .....
(a) incompetent (b) lazy (c) dissatisfied

85. Proper placement and adequate use of talent is the responsibility of the .....
(a) hiring office
(b) the supervisor
(c) the employee

86. "Discipline" has several meanings and connotations. Because of its derivation from *disciple*, the supervisor should put ..... as the #1 definition in his use of the word.
(a) "penalty for breaking rules"
(b) "train to obedience"
(c) "educate oneself to the habit of conforming"

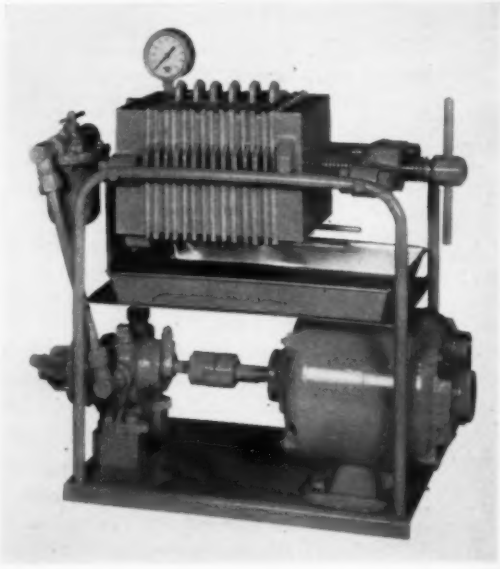
87. Misunderstanding of regulations, laziness, and lack of interest are subjects for .....
(a) discharge
(b) retraining
(c) reassignment or transfer

88. Some employees are fond of horseplay. Several remedies have been used to advantage in stopping the inclination, including .....
(a) buy him a horse
(b) send him home for a day or two
(c) give him more responsibility

89. There are several effective ways to reprimand a worker, if you must—particularly.....
    (a) by humilating him
    (b) in a loud and spicy manner
    (c) strictly in private
90. Squelching false rumors promptly may help to.....
    .....
    (a) avoid labor disturbances
    (b) keep management from complaining
    (c) better supervisor relations
91. After a worker has been reprimanded or warned, the supervisor should make sure that he realizes the importance of his mistake by.....
    .....
    (a) reminding him of it from time to time
    (b) withdrawing privileges for a while
    (c) helping to avoid repetition of the offence
92. Dissatisfaction is often due to a supervisor's failure to.....
    (a) inform workers of changes in policies and procedures
    (b) send birthday greetings
    (c) reprimand while the matter is "hot"
93. It is often said "The real leader is not afraid of occasional mistakes."
    He.....
    (a) places the blame on his people
    (b) doesn't "pass the buck"
    (c) never repeats mistakes
94. No supervisor is entitled to the confidence of his men until he demonstrates his ability to.....
    .....
    (a) give orders
    (b) get pay increases
    (c) plan for them
95. Strikes can most often be avoided by use of which of these methods.....
    (a) invoke the provisions of the Wagner Act
    (b) early adjustment of grievances
    (c) use of arbitration
96. A program activity designed to develop "beneficial suggestions" should.....
    (a) pay large returns to inventors
    (b) reduce absenteeism
    (c) improve job satisfaction and vocational interest
97. To effect improvement in methods and techniques in his department, the supervisor should.....
    (a) call in plant engineering
    (b) assign the job to his crew
    (c) apply work simplification methods
98. The present-day supervisor should know the correct answer to compensation problems of people in his organization because.....
    .....
    (a) he can thus get them more money
    (b) employees are better informed today
    (c) they want to retire earlier
99. Types of compensation fall into three groups, namely.....
    (a) light, medium, and heavy duty
    (b) real, monetary, and intangible
    (c) faith, hope, and charity
100. A system of employee efficiency and merit rating will prove of value in showing supervisor and employees......"
    (a) safety factors
    (b) weaknesses and strong points
    (c) differences of opinion

Answers to these questions will appear in the September issue.

The following information is supplied by manufacturers of the equipment described and claims made below by these manufacturers are passed along for what they are worth. Presentation of such notice in this department is not to be taken as endorsement of the claims or of the equipment.



Portable Laboratory Filter Press

For users of small filtration systems is the portable filter press weighing only 70 pounds, and 18 inches high with a width of 8 and a half inches. Despite its small size the unit is capable of filtration at the rate of 60 gallons per hour.

Incoming fluid is first passed through a Cuno filter which removes all colloidal particles. This feature not usually found on similar filter presses, serves the two-fold purpose of protecting the high output gear pump and increasing the efficiency of the filter press itself. A built-in relief valve maintains fluid pressure below 60 pounds per square inch without interrupting the filtration process. The pump is driven by a one-sixth horsepower motor suitable for operation on a 110-volt, 60 cycle power supply.

The filter press is available for immediate delivery. Made by Buckeye Laboratories Corporation, 6700 Morgan Ave., Cleveland 4, Ohio.

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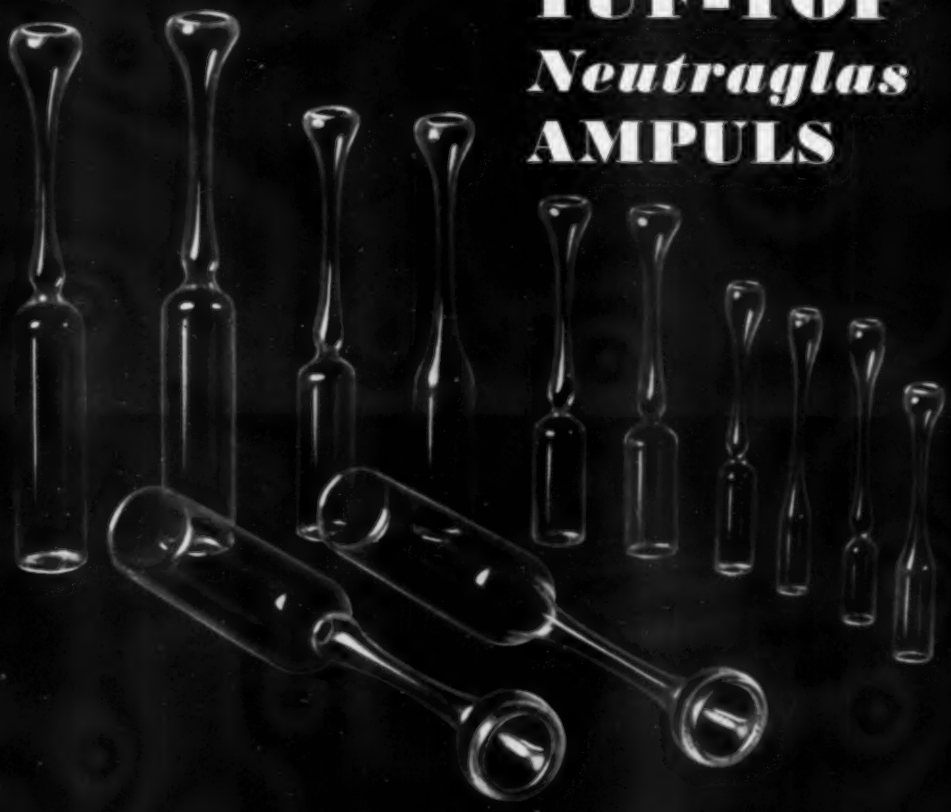

The top is tough. Enlarged opening with extra heavy glazed rim brings new freedom from chipping.

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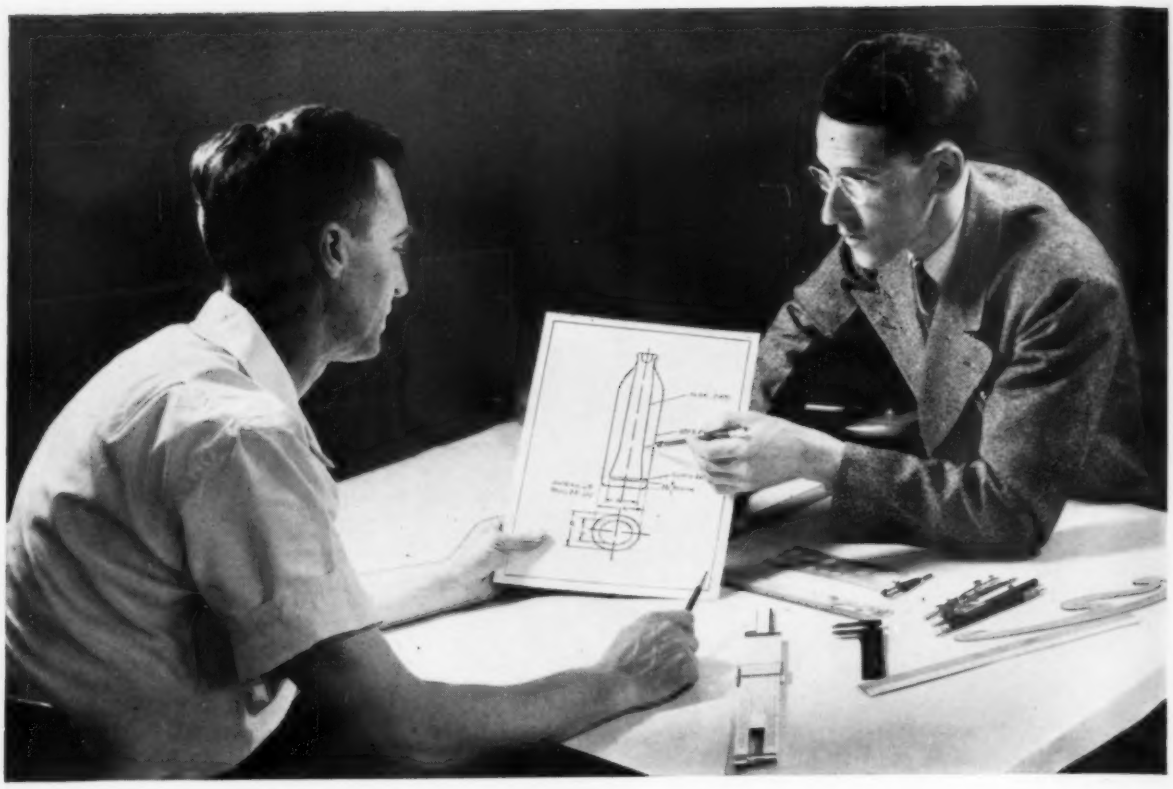

A NEW BLANK MOLD DESIGN SOLVED THIS GLASSMAKING PROBLEM

Not all glassmaking problems come direct from our customers. Recently, our Sales Department came up with a tough one. They asked our Production Department if they could make a specially designed flint bottle which would stand the rigors of repeated heating and chilling and at the same time could be made at low cost.

Our engineers and designers conferred and, after considerable study, they concluded that a uniform distribution of glass and a lightweight wall might do the job. With this in mind, the Chief Mold Designer drew up plans for a new blank mold. This mold was designed to provide a parison which, when blown to the final shape, would produce a bottle of the desired performance.

A body mold was then made and sample bottles blown. These were put through a series of tests. They passed with flying colors and the Sales Department got what they needed.

Your glass packaging problem may not require a special design. But whatever your problem, you're reasonably sure to find the answer at Armstrong. We have an unusually capable staff of experts in Engineering, Designing, Production, and Research to assure you the very best in glass and closure service. For further information on any of Armstrong's glass or closures, get in touch with your Armstrong representative or write direct to Armstrong Cork Company, Glass and Closure Division, 3808 Prince Street, Lancaster, Penna.

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Any Size *Plain or Embossed* *Any Shape*
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50 to 75 GROSS of CONTAINERS PER 8 HOUR DAY

BOTH are 2-Tube Machines and handle two containers at a time. Are portable and come furnished with cord and plug for attaching to electric circuit.

Both are fully automatic in operation except for placing and removing of containers by operator and require only ordinary skill for efficient operation. They serve efficiently not only for small producers, but as "stand-by" units in larger plants.

The E-Z Two-Tube Cleaner

THE E-Z TWO-TUBE CLEANER

A bottle cleaner for cleaning new glass. Efficiently removes foreign matter from new containers by means of compressed air. Furnished with Air Filter ready for connection to customers' air lines. Easily connected to lighting circuit. Floor space 27 x 14 in. Write for Model E-Z Bulletin.

COMPANION Semi-Automatic Machines

Model B-2 Semi-Automatic Vacuum Filler

THE MODEL B-2 SEMI-AUTOMATIC VACUUM FILLER is the new, improved filling unit that handles most any liquid from any size supply tanks and fills any containers from AGST size to 4" diameter. Has outstanding new features. Write for Model B-2 Bulletin.

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2—Stokes, Colton, Closers and Crimpers.
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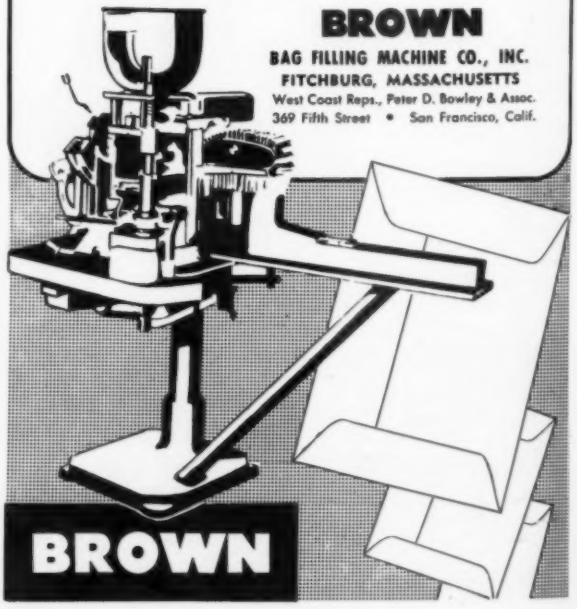

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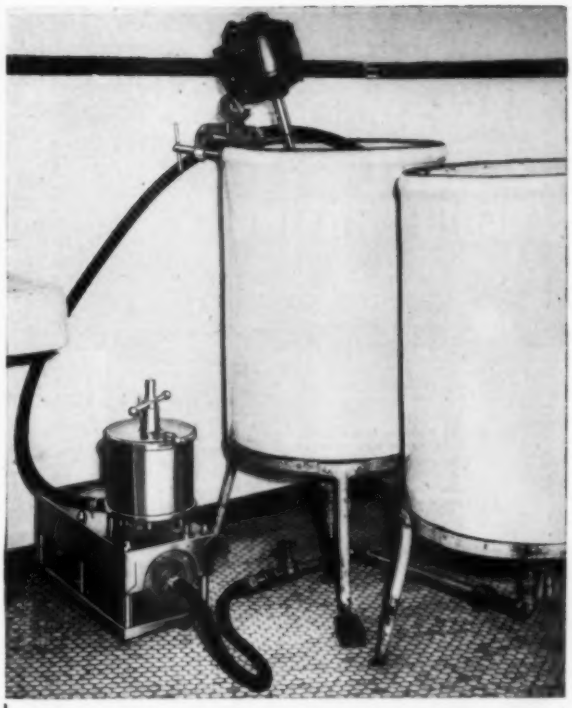

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1. Turbine head near bottom of tank starts a converging horizontal flow which carries sedimentary material into close-fitting rotor vanes.
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4. Rapid down-flow submerges and wets out floating material, including additives being fed into the mix.
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6. No surface boil . . . no vortex . . . NO AIR DRAWN IN.

The Eppenbach HOMO-MIXER is built on an entirely new principle. Whereas ordinary mixers create a vortex in the material that pulls in air, the HOMO-MIXER draws only from the bottom of the tank. Entrapped air tends to cause separation and splitting, and frequently oxidizes the product.

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Write for complete details of this mixer—"the only one of its kind." Ask for Catalog No. 402.

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Horm Filters for filtration, clarification, polishing, are designed so that no liquid can by-pass the filter element. They are unsurpassed for drug, chemical and cosmetic preparations.

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- No rubber washers used
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- Suitable for coarse and fine filtration, including germproof and ultra-fine

HORM ASBESTOS FILTER PADS FOR EFFECTIVE FILTRATION

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FILLING MACHINES

SEMI-AUTOMATIC
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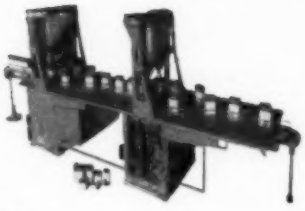
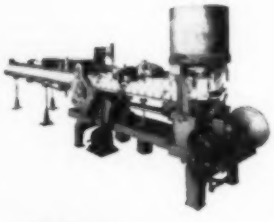
SINGLE and DUPLEX TYPES

MATERIALS
Pastes — Powders
Granular Products
or any free-flowing materials

PRODUCTION SPEED
15-30-60-120 per minute

CAPACITY
¼ oz. to 10 pounds





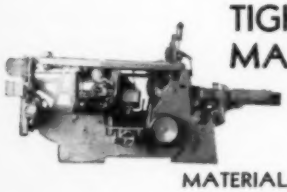
NEVERSTOP CARTON FILLER and SEALER

SEVERAL MODELS

MATERIALS
All Food and Grocery Products

CAPACITY
Maximum Carton — 10½" x 6½" x 4½"
Minimum Carton — 2½" x 1½" x ½"

PRODUCTION SPEED:
40 to 120 per minute



TIGHT WRAPPING MACHINE AUTOMATIC

Tight wraps the package after it is filled and sealed

Makes attractive, siftless, tight-wrapped package

MATERIALS: All products in cartons

CAPACITY
Maximum Carton—10 " x 6½" x 4"
Minimum Carton— 3½" x 1½" x 1"

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Write for literature.

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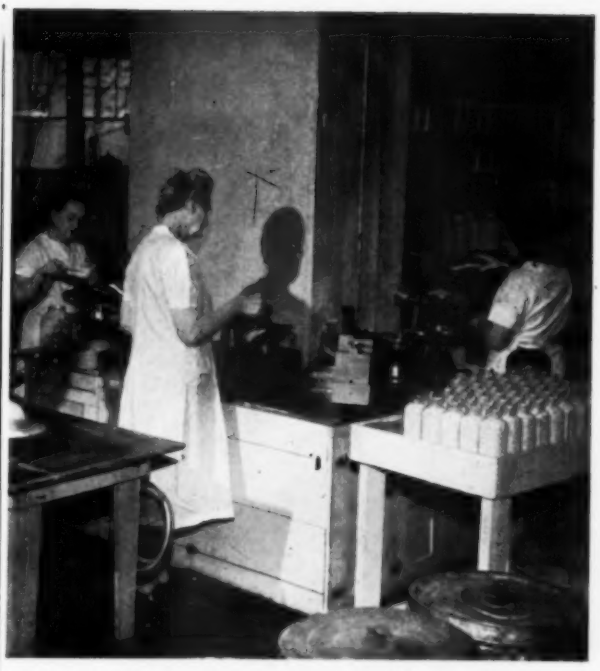

Packaging tablets on EXACT WEIGHT Scales at the Columbus Pharmacal Company, Columbus, Ohio.

How to Cut Tablet and Capsule Packaging Costs . . .

Packaging tablets and capsules by actual count is slow, tiresome to operators and expensive. Count by weight the EXACT WEIGHT way! This method is accurate to less than 1%, faster, cuts packaging costs 85%, says a Texas Chief Chemist, materially cuts operator fatigue. The facts are labor costs go down and volume goes up tremendously. All this cuts tablet and capsule packaging costs which is what you want to know. There are several EXACT WEIGHT Scales for these operations. Write us and we will suggest the model for you.

EXACT WEIGHT Scale equipped with two open scoops. Expressly designed for tablet and capsule counting by weight. Scoops come in three sizes and can be ordered to fit the operation. Scale capacity is also subject to specifications for the counting task involved.

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Exact Weight Scales

THE EXACT WEIGHT SCALE COMPANY
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- SIMPLE

Designed by CRAGAR

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Cut down costly production time with high speed filling. The new Rodgers Filler accurately fills all types of rigid or flexible containers with powder or paste materials.

Two Simple Dials allow immediate adaptation to different container sizes and products . . . independently controlling package fill time and transfer time.

SMOOTH OPERATION LOW MAINTENANCE COSTS

Rodgers

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225 West 34th Street, New York 1, N. Y.

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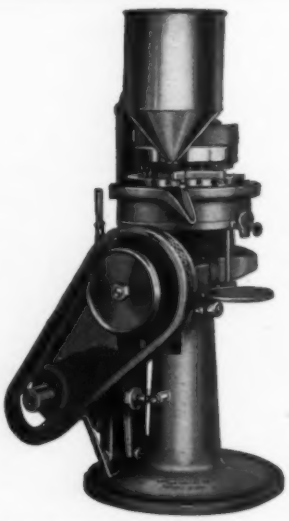

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Rapid and accurate filling brought within the reach of everyone. Contains many of the features of large and costly machines. Will fill bottles in straight line manner as well as in your own packing trays. Foot operated.

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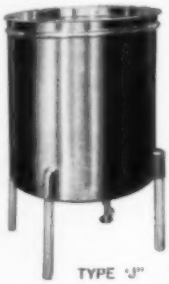

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METAL-GLASS PRODUCTS CO.

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Hubbert Kettles built to ASME & CANADIAN Codes.

Request certificates when ordering.

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YOUR TRADE-MARK RECORD

By JOHN H. GRAHAM
International Trade-Mark Consultant

INTERESTING decisions on trade-mark matters have been coming thick and fast of late. Both the Patent Office and the Courts appear all set to match their findings to the modernized trade-mark act now in force. After reading some of these decisions it makes me wonder how anyone can ever hope to be able to predict chances of success in a trade-mark controversy. Here are excerpts from some cases involving our own field of endeavor.

"Dana" Versus "L'Dianelle"

Les Parfums de Dana, Inc. opposed registration of "L'Dianelle" to Arthur H. Ferber as a trade-mark for perfumes but were unsuccessful. Assistant Commissioner Frazer rendered his decision in favor of registering "L'Dianelle" over Dana's registered trade-mark dominated by the word "Dana" also used on perfumes.

The only question to be determined was whether the two marks so closely resembled each other as to be likely to cause confusion in the public mind.

It was held that the two words did not look alike nor did they have any similarity of meaning. To approach similarity it would be necessary to delete the beginning and end portions of the mark "L'Dianelle." The mark, however, must be considered in its entirety and when so considered was held to be different from Dana's mark in all essential particulars.

Vitamins and Dentifrices Held As Conflicting Goods

Mr. Justice Bland reversed a decision of the Commissioner recently. Vick's Chemical Co., owners of the registered trade-mark "NEUTROX," filed opposition to the registration of the mark "NUTREX" to Nutrex Co., Inc. The marks obviously were confusingly similar but the goods differed widely. "NUTREX" is applied to a preparation containing vitamin B. "NEUTROX" is applied to a dentifrice and mouth wash.

The Examiner of Interferences sustained the opposition. Upon Appeal, the Commissioner reversed him and dismissed Vick's opposition. Finally, appeal to the U. S. Court of Customs and Patent Appeals resulted in Judge Bland sustaining the opposition.

In all three suits the question turned upon the goods being *either* of essentially different characteristics and use *or* being of the same descriptive properties.

In the record it was shown that while Vick's dentifrice and mouth wash may be used as a regular routine daily dentifrice it also had therapeutic value because it contained sodium perborate and was recommended, therefore, for treating trench mouth. This presumably placed the goods in confliction, as it were, as being sold for therapeutic usage.

In the decision it was also clearly brought out that it is well-known that producers of merchandise of the kind involved frequently produce many different kinds of articles and sell them under a single trade-mark. This latter is a very significant statement and indicates a possibility of protecting normal extension of a mark in future use on allied but not closely similar goods.

Vitamins and Throat Lozengers Held To Be Confusingly Similar

The same Mr. Justice Bland again reversed the Commissioner in McKesson and Robbins, Inc. versus First Texas Chemical Manufacturing Co. McKesson and Robbins filed opposition based on their registered trade-marks "ORA" for a deodorant and "ORAFORM" for throat pastils. Texas Co.'s mark was "ORA-CEL" as applied to a vitamin preparation. As previously, the Examiner sustained the opposition, the Commissioner reversed him and dismissed the opposition and Justice Bland reversed the Commissioner.

Several interesting points arise in the rather long decision here. One is that since "ORA," "ORAFORM" and "ORA-CEL" are terms not often used in English speaking circles, there is more likelihood of confusion than under circumstances where the terms are more frequently used in this country. I mention that this doctrine is not new but is not taken into consideration enough when starting out to form a new trade-mark. English terms and French, Spanish and similar foreign terms which are common to a large percentage of people here do not give as much breadth of protection as either a coined, meaningless notation or a foreign word not likely to be well known here.

Another point of interest is that one of the reasons the opposition was sustained was that vitamin preparations were goods of the same descriptive properties as throat lozenges because both are pharmaceuticals and are medicinal in character. Thus under this doctrine it would only be necessary to

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BLUE.. stops the eye... starts the sale

PACK TO ATTRACT IN

Maryland Blue

"Stop Shoppers"... see other side...

Stop shoppers

WITH RICH, ROYAL MARYLAND BLUE

MAKE your product stand out from the crowd . . . give it the appearance of quality . . . and you improve its opportunity for success in highly competitive markets. Many famous products are seen, recognized and bought more frequently because they are packed in rich, royal, "eye-stopping" Maryland Blue Glass. Here's why:

BLUE makes your product easier to see.
BLUE makes your product easier to remember.
BLUE makes your product smartly modern.
BLUE insures rich, distinctive appearance.
BLUE stands out, assures better display.
BLUE advertises your product in the home.
BLUE builds profits, steps up repeat sales.

Write today . . . tell us the nature of your product and the sizes in which it is packed . . . and let us send you samples of appropriate stock designs. Or, if you use bottles or jars in large quantities, we'll be glad to create a special design for your exclusive use.

• • •

MARYLAND GLASS CORP.
BALTIMORE 30, MD.

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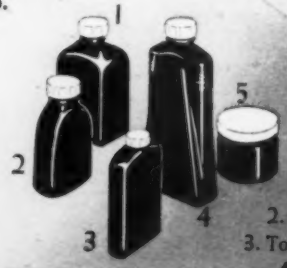
Maryland Blue



Pictured on the preceding page are just a few of the handsome stock designs. This diagram makes them easy to identify.

1. Cabinet Square in ½ oz. to 32 oz. sizes
2. Maryland Oval in 1⅛ dram to 32 oz. sizes
3. Toilet Oval in ½ oz. to 8 oz. sizes
4. Chesapeake Oval in 4 oz. to 32 oz. sizes
5. Squat Jar in 2⅝ dram to 18 oz. sizes

ALSO AVAILABLE IN CLEAR GLASS

determine some common factor of similarity in order to demonstrate the goods are of the same descriptive character.

The Lanham Act Alters Definition

The decisions referred to above were all rendered under the Act of 1905 which is superseded by the Lanham Act of 1946, now in force.

Under the new (and present) law the question of goods being of the same descriptive properties will not apply. The question will now turn solely upon possible confusion in the public mind when using the trade-marks in conflict on similar or even widely different goods. This will protect owners of nationally known and used trade-marks from others appropriating the mark for widely different goods. You will note the quoted decisions reflect this new definition by minimizing the importance of the goods being of the same descriptive properties and even trying to find a common denominator to show goods are in conflict.

The Trade-Marks listed here are dated March 18, 1947 through April 8, 1947 inclusive.

WB—50—VI—T—503,324
The Penn. Salt. Mfg. Co., Phila. Pa.
Ser. June 5, 1946 D. U. Feb. 21, 1946
WALKEX—VI—T—512,142
Robert H. Fite, Miami, Fla.
Ser. Sept. 4, 1946 D. U. Aug. 1944
WOOL FLUF—IV—A—500,319
Organic Chem. Co., Providence, R. I.
Ser. Apr. 16, 1946 D. U. Mar. 1, 1946

YOUNG SKIN—VI—CH—489,127
R. H. Laird Mfg. Co., (Rose Laird) New York, N. Y.
Ser. Sept. 28, 1945 D. U. Sept. 23, 1938

ZETYN—VI—K—501,890
Winthrop Chem. Co., Inc., New York, N. Y.
Ser. May 10, 1946 D. U. Apr. 15, 1946
ZOLL FAMILY SOAP—IV—A—428,929
Zoll M. Zilberbrand, (Zoll Soap Co.) Chicago, Ill.
Ser. June 4, 1945 D. U. May 1, 1944

The Trade-Marks listed here are dated April 15, 1947 through May 20, 1947 inclusive.

AMELIA JANE'S—VI—H—478,993
Amelia Hill, New York, N. Y.
Ser. Jan. 25, 1945 D. U. July 24, 1944
Reg. 429,476 Apr. 29, 1947
AMOLIN—VI—CDIST—478,184
The Norwich Phar. Co., Norwich, N. Y.
Ser. Jan. 3, 1945 D. U. Jan. 1, 1893
ARISTON—IV—A—504,143
Affiliated Retailers, Inc., New York, N. Y.
Ser. June 19, 1946 D. U. May 10, 1946
AUREOLE—VI—AH—502,225
Jules Montenier (Select Cosmetics) Chicago, Ill.
Ser. May 16, 1946 D. U. Nov. 1, 1931

BATU—IV—AM—503,800
Consolidated Cosmetics, Chicago, Ill.
Ser. June 13, 1946 D. U. June 10, 1946
BEAU-CAKE—VI—C—498,825
Colgate-Palmolive-Peet Co., Jersey City, N. J.
Ser. Mar. 23, 1946 D. U. Mar. 13, 1946
BEAUTY-SOFT—VI—C—499,731
Reed Phar. Co. Inc., (Reed Phar. Co.) Randolph, Mass.
Ser. Apr. 5, 1946 D. U. Jan. 28, 1946
BIEN A VOUS—VI—BCK—499,157
Soc. Anonyme de Difusion Internat. de Parfum., Paris, France
Ser. May 28, 1946 D. U. Jan. 1, 1946
BONHEUR—VI—CHI—486,190
The Bonheur Co., Inc., Brooklyn, N. Y.
Ser. July 24, 1945 D. U. Dec. 1, 1907

CAMPHODENT—VI—K—490,399
Marius Rotwitt, Copenhagen, Denmark
Ser. Oct. 23, 1945 D. U. Oct. 30, 1942
CHANTACO—VI—B—503,873
Jean d'Hennery, Inc., New York, N. Y.
Ser. June 14, 1946 D. U. May 8, 1946
CHASSE GARDEE—VI—BCK—499,163
Soc. Anonyme de Diffusion Internat. de Parfum., Paris, France
Ser. Mar. 28, 1946 D. U. Oct. 1, 1945
CHEMI-KILL—VI—T—510,826
Chemi-Troll Prod. (Commercial Chem. Co.) Gibsonburg, Ohio
Ser. Oct. 14, 1946 D. U. Oct. 1945
CHEVRON—VI—M—505,988
Standard Oil Co., Wilmington, Del.
Ser. July 20, 1946 D. U. May 17, 1946
CIPANGO—VI—BCK—499,158
Soc. Anonyme de Diffusion Internat. de Parfum., Paris, France
Ser. Mar. 28, 1946 D. U. Jan. 1, 1946
CRISTOBAL BALENCIAGA—VI—ABCEHK—491,072
Cristobal Balenciaga Elzaguirre, San Sebastian, Spain
Ser. Nov. 5, 1945 D. U. July 21, 1942

DA—VI—B—506,310
Gloria Vanderbilt Corp., New York, N. Y.
Ser. July 26, 1946 D. U. July 23, 1946
DEL—VI—AH—497,972
Harry Shapiro (Chem. Specialties Co.) New York, N. Y.
Ser. Mar. 9, 1946 D. U. June 1944
DATE NIGHT—VI—A—498,119
Nancy Dale, Ltd., New York, N. Y.
Ser. Mar. 13, 1946 D. U. Jan. 25, 1946
DEEP PURPLE—VI—BC—494,589
Parfums Charbert, Inc., New York, N. Y.
Ser. Jan. 10, 1946 D. U. Dec. 26, 1945
Reg. 429,485 Apr. 29, 1947
DERMATECTIVE—VI—C—502,984
E. R. Lambertson (Medi-Synth Lab.) Los Angeles, Calif.
Ser. May 29, 1946 D. U. June 1938
DESTRA—VI—D—501,055
Destra Distributor, Chicago, Ill.
Ser. Apr. 27, 1946 D. U. June 1, 1945
DOGARESSE—VI—B—503,875
Jean d'Hennery, Inc., New York, N. Y.
Ser. June 14, 1946 D. U. May 8, 1946
DOG GROOM—VI—M—507,281
Vernan Mfg. Co., Johnstown, Pa.
Ser. Aug. 12, 1946 D. U. Aug. 1, 1946
DON QUIJOTE—VI—BC—502,644
Lentheric, Inc., New York, N. Y.
Ser. May 23, 1946 D. U. May 14, 1946
DOUBLE COAT—VI—E—503,697
Avon Prod. Inc., New York, N. Y.
Ser. June 12, 1946 D. U. Feb. 20, 1946
DOUBLE DARE—VI—CE—494,774
Kay Daumit, Inc., Chicago, Ill.
Ser. Jan. 15, 1946 D. U. Oct. 25, 1945

EDJOL (With des.)—VI—FKIT—493,194
J.E.T. Pharmacal Co., Allentown, Pa.
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ESCAPE (With des.)—VI—B—490,799
Mary Dunhill, Inc., New York, N. Y.
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ETEIGNONS TOUT—VI—B—499,118
S. de Benveniste, Paris, France
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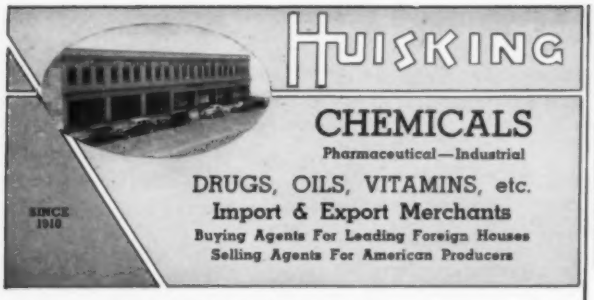
EVERGREEN PINE JELLY SOAP—IV—A—501,677
Murphy Lab. Inc., Upper Darby, Pa.
Ser. May 8, 1946 D. U. Apr. 1944
Reg. 429,636 May 6, 1947
EXHALTATION—VI—B—506,358
Michael Agazim (The Floralatoms Co.) Chicago, Ill.
Ser. July 27, 1946 D. U. May 9, 1946
EYE KLEEN—VI—M—498,554
Fred R. Wallich (Wallich Lab.) Los Angeles, Calif.
Ser. Mar. 19, 1946 D. U. Jan. 1940
Reg. 429,500 Apr. 29, 1947

FARMCRAFT—VI—T—504,041
Farmcraft, Inc., Portland, Oregon
Ser. June 17, 1946 D. U. May 31, 1946
FEU de PAILLE—VI—BC—504,115
Raphael Lopez (Maison Raphael) Paris, France
Ser. June 18, 1946 D. U. Dec. 29, 1944

(*Continued on page 268*)



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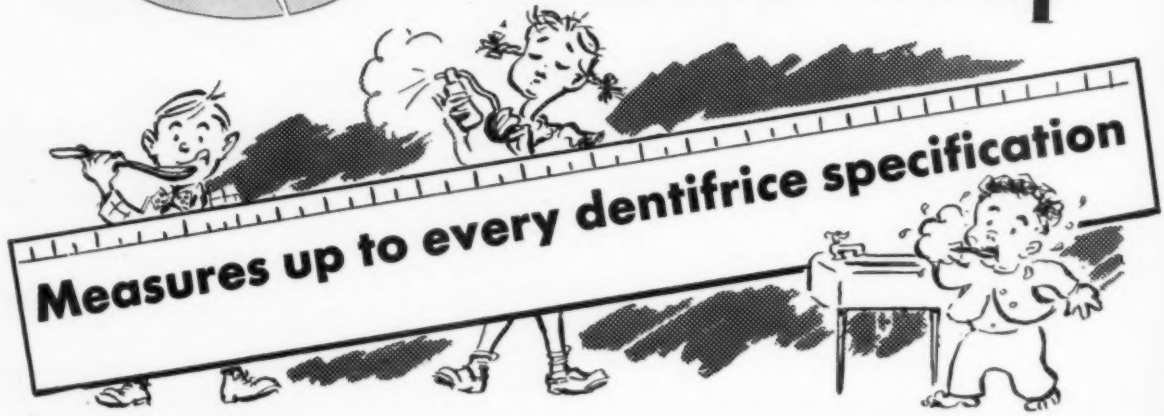

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Patent Thoughts and Trends

By THOMAS CIFELLI, Jr., Patent Attorney

Benadryl

Doctors of medicine rightfully are held in high esteem by the public. Indeed, a recent survey showed that physicians are right at the top of the list of professions and occupations in this regard, having passed the bankers, who were first (prior to the 1929 crash). Without in any way intending to detract from the credit due the men in white, it nevertheless seems appropriate to apportion some acclaim to the others who aid the physician in the continuing battle of health. However, the all-too-often anonymous nature of their contributions makes this difficult, if not impossible, most of the time. All the more, therefore, should advantage be taken of the few opportunities to single out a worthy person. Such is believed to be the case with regard to Benadryl.

This drug, probably known to most adults by now, even though it was only comparatively recently released, is a Parke, Davis product. Physicians have prescribed it extensively, especially in connection with "allergies." It is understood that many patients have been helped greatly by it. What is perhaps known to very few is that a man by the name of George Rieveschl, Jr., of Grosse Pointe Woods, Michigan, is the inventor of the drug. The writer just learned this fact on noting a U.S. patent (No. 2421714) issued to Rieveschl and assigned to P.D.

Actually, the patent covers a family of compounds of which benadryl is a member. The name of the family is dialkylaminoalkyl benzhydryl ethers and salts thereof. The compound sold under the name BENADRYL is beta-dimethylaminoethyl benzhydryl ether hydrochloride.

In the language of the patent, the members of the family are "potent antihistamine agents as revealed by their ability to alleviate the severe bronchioconstriction in guinea pigs induced by histamine administration. The compounds are extremely active in preventing anaphylactic shock in sensitized guinea pigs. In vitro experiments with guinea pig ileal muscle suspended in Tyrodis solution, prove that these compounds are remarkably active in preventing smooth muscle spasm induced by such agents as histamine, actyl choline and barium chloride." Benadryl is said to be indicated for use in human beings for allergic conditions (asthma, urticaria, histamine cephalgia, anaphylactic shock), smooth muscle spasm (biliary spasm, dysmenorrhea).

The patent lists more than a dozen other co-pending patent applications directed to various processes for making the drugs as well as to related compounds, so that it is likely that the Parke, Davis patent situation will be strengthened with time.

An example for preparing the drug called benadryl as given in the patent may be of interest and is therefor given as follows:

(a) Benzhydryl bromide is first prepared as follows:

Eight hundred and forty parts by weight of diphenylmethane is heated to 130° C. with stirring. In the presence of a 200 watt electric light 6 inches from the flask, 880 parts of bromine is added slowly. Liberation of HBr occurs and addition requires 1 hour and 45 minutes. The temperature is maintained at 130° C. for an additional 30 minutes. A fine stream of air is blown in to remove HBr and Br^2 while the reaction mixture cools. Benzene (180 parts) is added and the solution used immediately under (b) below.

If pure benzhydryl bromide is desired the above reaction mixture is dissolved in ether, washed with water, sodium carbonate solution and finally with water. The ether is removed, benzene added and distilled off and the benzhydryl bromide distilled in vacuo. Yield 85%.

(b) Four hundred ninety parts beat-dimethylaminoethanol and 530 parts of anhydrous sodium carbonate are heated to 110° C. with stirring. The addition of the benzene-benzhydryl bromide mixture is then begun. The temperature is raised to 120-125° C. As reaction takes place carbon dioxide is evolved, the addition requires 1½ hours. The mixture is kept at 125° C. for 5 hours additional time. After cooling, 3000 parts of water is added and the mixture stirred until the inorganic salts are dissolved. The mixture is transferred to a large separating funnel and 1500 parts of ether added. The ether solution is washed several times with water and then the ether layer extracted with 1 to 4 hydrochloric acid. The acid solution is treated with 30 parts of Darco and 30 parts Filter-Cel and filtered. The free base is liberated from the acid solution with 20% sodium hydroxide solution and taken up in ether. The ether layer is washed with water, saturated with MaCl and then shaken with solid potassium hydroxide. The ether is removed by distillation, 200 parts of benzene added and distilled off. The residue is distilled in vacuo and the fraction 150-165° C./2 mm. is collected and amounts to 433 parts. The hydrochloride salt is prepared by dissolving the free base in anhydrous ether and slowly adding an alcoholic solution of hydrogen chloride. The solid is recrystallized from absolute alcohol-ether mixture or isopropanol-ether mixture and has a M.P. of 161-162° C.

Steroidal Hormones

Russell Marker continues to obtain patents on steroidal hormones. He recently obtained U. S. Patent No. 2420489 and No. 2420490, and with E. J. Lawson, No. 2420491, all assigned to Parke Davis. Some earlier patents obtained by Marker and co-workers are 2291643, 2352648, 2352848, 2352850, 2352851, and 2352852.

The cases are all related and only by considering all of them together can a true picture of Marker's contributions be obtained. The specific contributions of the three recent patents are:

(1) U. S. 2420489

Preparation of pseudo-Δ^4-tigogenenone, its oxidation to $\Delta^{4,16}$-pregnadienedione-3,20, and the conversion of that latter to the therapeutically important progesterone.

(2) U. S. 2420490

New class of hormone intermediates designated as Δ^{16}-20-hydroxy-pregnene compounds.

(3) U. S. 2420491

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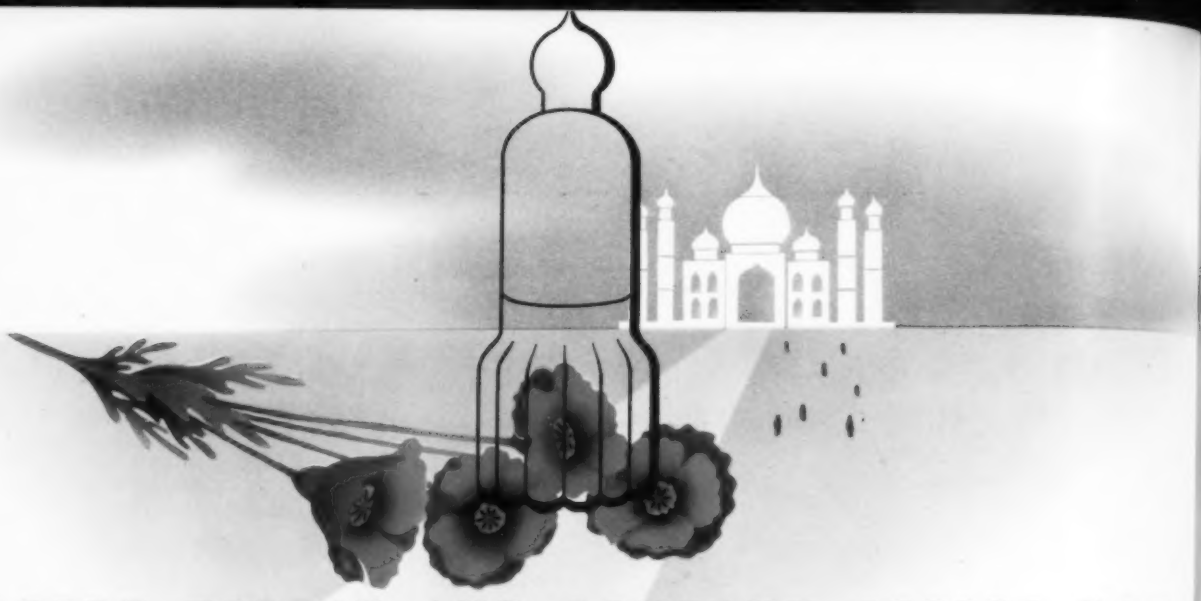

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Water-dispersible Essential Oil Compositions

One of the frequently-occurring problems met by many who work with essential oils and perfumes is that of applying these materials in the form of water solutions or dispersions. Cost and health considerations very often make it necessary to sharply limit the use of solvents other than water. Obviously, you couldn't very well spray a theater with a lot of perfume containing a lot of ethyl alcohol. Though some people might not object to the unexpected bonanza of spirits it is likely that most people would.

The problem has been normally attacked by using emulsifying and dispersing agents. In the opinion of some, these materials have various objections, such as objectionable odors or tastes of their own, undesirably high toxicity, expense either due to the cost of the material or due to the large amount of the material that must be used, and, finally, inability to produce satisfactory aqueous solutions or dispersions of the oils.

Now comes Walter Taylor of Connecticut, who has a different solution to the problem. He proposes the use of certain long-named chemicals as solubilizing agents and gives his teachings in U. S. Patent 2422145, asigned to Atlas Powder Co.

The compounds Taylor suggests as solubilizers for essential oils are water-soluble hydroxy polyoxyethylene ethers of partial higher fatty acid esters of low molecular weight polyhydroxylic compounds. To produce stable fine dispersions or solutions the extended compositions are said to require at least as much of the solubilizing agent as essential oil, and preferably several times as much agent as essential oil.

According to the patent, the idea is applicable to both the natural and synthetic types of essential oils. Examples of compositions which can be made are given in the upper table.

An idea of the aqueous dispersions or solutions obtainable through Taylor's teachings can be gotten from the lower table shown.

The inventor says that his compositions can be used wherever the essential oils are needed or customarily employed. Flavoring concentrates for cooking and candy-making; perfume and deodorant oils for toilet waters, cosmetics, and laundry aids; and perfume oil compositions for theater sprays are specific uses mentioned.

Example Number	Essential oil	Parts	Solvent	Parts
1	Benzaldehyde	1	Mannitan monolaurate hydroxy polyoxyethylene ether (20 oxyethylene groups per mol).	1
2	Eucalyptol	1	do	1
3	Oil of Orange	1	do	1
4	Terpineol	1	do	1
5	Oil of Spearmint	1	do	1
6	Oil of Lemon	1	do	1
7	Oil of Cassia	1	do	1
8	Oil of Clove	1	do	1
9	Oil of Cedar Leaf	1	do	1
10	Oil of Peppermint	1	do	1
11	Tea Tree Oil (Ti-tree)	1	do	1
12	Siberian Pine Needle Oil	1	do	1
13	Methyl Salicylate	1	do	1
14	Benzyl Acetate	1	do	1
15	Pine Oil	4	Mannitan monopalmite hydroxy polyoxyethylene ether (20 oxyethylene groups per mol).	1
16	Oil of Cassia	1	Pentaerythritol monolaurate hydroxy polyoxyethylene e her (20 oxyethylene groups per mol).	1
17	Oil of Orange	1	do	1
18	Oil of Cassia	1	Glycerol monolaurate hydroxy polyoxyethylene ether (20 oxyethylene groups per mol).	1
19	Oil of Orange	1	do	1
20	Oil of Cassia	1	Glycerol monooleate hydroxy polyoxyethylene ether (20 oxyethylene groups per mol).	1
21	Oil of Orange	1	do	1
22	Oil of Cassia	1	Glycerol monostearate hydroxy polyoxyethylene ether (20 oxyethylene groups per mol).	1
23	Oil of Orange	1	do	1
24	Oil of Cassia	1	Ethylene glycol monolaurate hydroxy polyoxyethylene ether (20 oxyethylene groups per mol).	1
25	Oil of Orange	1	do	1
26	do	1	Sorbitan monolaurate hydroxy polyoxyethylene ether (8 oxyethylene groups per mol).	4
27	do	1	Sorbitan monolaurate hydroxy polyoxyethylene ether (20 oxyethylene groups per mol).	4
28	do	4	Mannitan monolaurate hydroxy polyoxyethylene ether (60 oxyethylene groups per mol).	1
29	do	1	do	4

Example Number	Essential Oil	Parts	Solvent	Parts	Water Parts	Character of dispersion
30	Oil of Orange	1	Mannitan monolaurate hydroxy polyoxyethylene ether (20 oxyethylene groups per mol).	4	95	Cloudy but stable.
31	do	1	do	6	93	Slightly cloudy but stable.
32	Oil of Cassia	1	do	7	9	Clear.
33	Oil of Orange	1	do	6	9	Do.
34	Oil of Cassia	1	Glycerol monolaurate hydroxy polyoxyethylene ether (20 oxyethylene groups per mol).	7	9	Do.

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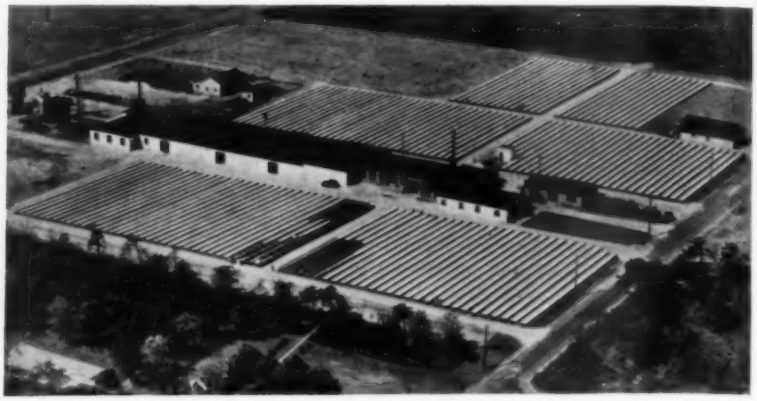

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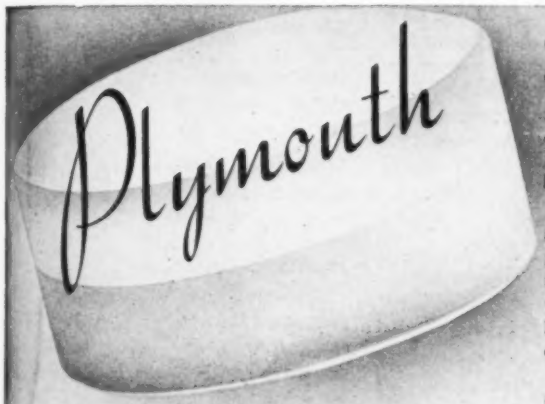

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At the Spring meeting of the Society of Cosmetic Chemists, M. A. Goldzieher, noted endocrinologist, gave a most interesting and comprehensive report on the status and value of estrogen creams. He pointed out that of all the endocrine products, estrogen is the one hormone singularly fitted for cosmetic administration. It is absorbed if applied topically in a suitable ointment base. Estrogenic ointment can be used medicinally for systematic purposes, in the place of injections or oral medication. The female sex hormone is needed not only for the function and maintenance of the genital organs and secondary sex characteristics of women, but it plays a role in the metabolism of most tissues of the body. The skin is particularly in need of estrogenic stimulation. This is demonstrated by the atrophy of the skin in the castrate and menopausal woman. Atrophy of the epidermis and elastic fibrils of the cutis is associated with decreased vascularization. On administration of estrogen, the appearance of the skin reverts to normal. The changes include regeneration of the epithelium and elastic fibrils, better vascularization and turgor of the cutis. Far better results are obtained by topical administration than by parenteral or oral medication because topically administered estrogen acts directly on the tissues whereas ingested or injected estrogens are carried in the bloodstream to the skin in high dilution and after depletion through physiological forces.

Histological slides, prepared from hormone-treated and untreated areas clearly demonstrated the effectiveness of topically applied estrogens on the skin of elderly menopausal women. Goldzeiker stressed, however, that the need for estrogen in the skin is not limited to castrate or menopausal women. Unsatisfied demands of the skin for estrogens are well conceivable in spite of actively functioning ovaries. The avidity or affinity for hormones circulating in the blood is not the same for all tissues. The organ or tissue, the affinity of which is low, does not partake to the same degree in the hormone supply as the organ with "high priority" such as the genitals or breasts. The needed amount and concentration can be obtained only by topical administration.

In the discussion following delivery of his paper, this authority stated that there is no foundation for the view that the topical use of estrogen creams may be corcinogenic. He pointed out that the body has efficient ways to eliminate estrogen via the liver and kidneys. In his opinion the upper limit for cosmetic use of estrogen is 10,000 units per ounce of base. Higher unitage may cause systemic effects, which are undesirable. Conversely, less than 7,500 units of estrogen per ounce may not produce the desired local effects. Both natural and synthetic estrogens may be used, provided they are employed in the same unitage. Any fatty base is satisfactory for topical application of estrogen. Goldzieber used petrolatum in his investigations, but lanolin, absorbtion bases and other materials may serve as vehicles for the active agent. Especially interesting was the observation that there is no need for a woman to wait until skin changes actually occur. Indeed, early use of estrogen cream may delay the skin changes that are noted in older women.

New Depilatory Patented

In U. S. Patent 2,417,882, L. J. Neary describes a novel hair removing composition prepared by mixing a sticky viscous, non-setting, water-soluble syrup with a water-insoluble, non-abrasive powdered filler. Commercial glucose is preferred as the syrupy component. The insoluble filler may be talc, zinc oxide, whiting, silica flour, or similar material. As an example of a typical composition, two parts of commercial glucose are thoroughly mixed with one part of finely powdered zinc oxide. Use of a glucose of 43° Baume gravity provides a product of the proper consistency for spreading and packaging in collapsible tubes. For use as a depilatory, the plastic mixture is spread with a spatula in a thin layer over the desired area. It is then removed by pressing a cloth, paper or other non-stretching sheet material over the spread material and stripping the adhering mixture from the skin surface. The unwanted hairs are pulled out by adhesion in the mixture.

Such a composition, Neary claims, has the advantage that it may be applied without previous heating, and performs its function at body temperature, that any excess may easily be removed by water, and that the hairs are pulled out with a minimum of pain and discomfort.

Mouthwash Tablets

A formula for making antiseptic mouthwash tablets, which should give no trouble from the undue absorption of atmospheric moisture (e.g. hygroscopicity), is given in the *Chemist and Druggist* (147:629, 1947), as follows:

Benzoic acid	20 Gr.
Boric acid	750 "
Phenol	25 "
Sodium bicarbonate	125 "
Acacia, powdered	125 "
Carmine	2 "
Gluside	4 "
Thymol	2 "
Oil of peppermint	25 min.
Oil of gaultheria	15 min.
Water, distilled	sufficient

Make one hundred tablets. One tablet is dissolved in a wineglassful of warm water as a mouthwash.

Paste Soap Shampoo

Although much attention has been focused on paste shampoos based on synthetic detergents, there is considerable interest in products made with soap. Noteworthy in this connection is the following formula for a paste shampoo as given in The Chemist and Druggist *for June 28, 1947, and 756:*

Best white soap	14 Oz.
Potassium carbonate	3½ "
Water	28 "

Shred the soap and mix with the potassium carbonate in water. Allow to stand overnight, then heat gently, stirring to make homogeneous, and add:

Glycerine	7 Oz.
Oil of lavender	½ Dr.
Oil of bergamot	½ "
Essence of musk	2 "

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Cake Make-Up

Cake make-up, says H. Janowitz *in Soap, Perfumery and Cosmetics* (20:469, 1947), is fundamentally a more or less simple adaptation of previous inventions, such as the liquid powder known originally as Eau de Lys, and of powder cream, soap leaves, and the like. As a matter of fact, cake make-up is essentially a heavy powder cream which has been dehydrated. Cake make-up, however, does not show the tendency to clog the skin as do powder creams, because it is more readily removed by washing.

In his approach to formulation, Janowitz suggests that the first step is to make a vanishing cream base free of glycerine, glycols or other humectates. There should be an ample proportion of carefully selected emulsifiers. The object is to get the lanolin or other fats into a thoroughly emulsified, readily washable condition. The stickiness of lanolin can be moderated by the addition of light liquid paraffin or white oil. The following proportions are approximate:

Cream Base A

Stearic acid	15 Parts
Triethanolamine	2 "
Borax	2 "
Lanolin	5 "
Mineral oil, light	5 "
Water, to make	100 "

The water content can be reduced, if desired and thus the drying time can also be cut. Other emulsifiers, like technical glyceryl monostearate, can be used.

The powder base is composed of pigments that are not in themselves strongly water-repellent. This eliminates many commonly used substances; leaving titanium dioxide, talc and kaolin. Titanium dioxide is an excellent covering agent, talc facilitates spreading, and the kaolin helps to give the desired heavy film and eventually absorbs possible traces of visible fat. The formula is thus completed:

Powder Base B

Titanium dioxide	10 Parts
Tale	50 "
Kaolin	40 "

Cake Make-Up

Cream Base A, as above	50 Parts
Powder Base B, as above	50 "

All parts are by weight. In the finished, dried product, approximately 70 parts of powder should be present, with 30 parts cream. The powder is mixed with the cream in a suitable mill and is then dried, ground or milled, and compressed. Suitably manipulated, this type of formula will give a good cake make-up covering minor skin blemishes adequately and "staying put" for long periods of time.

Urea-Formaldehyde Resins as Hair Fixatives

An item in Soap, Perfumery and Cosmetics *(20:452 1947) cites the methods developed by A. M. J. Rutten by which water-soluble urea condensation products can be used to prepare non-greasy hair fixatives. The resins are obtained from the condensation of urea or one of its derivatives with formaldehyde in the presence of saccharates or dissacharides and/or polyvalent alcohols. By varying the proportions of the ingredients it is possible to control viscosity, or to obtain clear or emulsified products. The acidity is also easily adjusted. The resulting hair-fixing films, formed after evaporation of the solvent, may be removed by simple washing. A typical formula calls for the use of:*

Urea	180
Glycerine	100
Boric acid	60
Solution of formaldehyde	450
Ammonia (25%)	180
Distilled water	200

The procedure is as follows: Dissolve the first three substances in the boiling water; add the formulin and then the ammonia. Keep the mixture boiling for 15 minutes, stirring constantly. When cold, replace the water lost by evaporation by adding alcohol (96%) or water to make 1,000 parts.

In other formulas the glycerine is replaced by glucose or by glycocoll and lactose; the other constituents showing little or no variation. The products so obtained should be clear, viscous and odorless, with a pH of 6 to 6.5. If desired, the fixatives may be tinted and perfumed and tonic substances, like pilocarpine or quinine chlorhydrate, may be incorporated. Alcoholic dilutions are also suggested. Not confined to the formulation of hair fixatives, urea condensation products of this type can also be extended to the manufacture of lotion and permanent wave preparations.

Technical Data File on Cosmetic Creams

Of interest to manufacturers of emulsion and non-emulsion cosmetic creams is a new technical data file prepared by the Department of Industrial Research, L. Sonneborn Sons, Inc., New York, which describes the use of highly refined white mineral oil and U.S.P. petrolatums as ingredients in the preparation of cold cream, cleansing cream, rouges, lip pomades and other cosmetic specialties. The technical data file is standard file cabinet size and may be used as a folder for filing other essential data on the subject of cosmetic creams. Conveniently arranged on the front and back of the file are properties of the white oil and petrolatums essential for the purpose. The file also contains several formulas which can be adapted or modified to meet individual specifications for baby creams, emollient creams, hand creams, face creams, pigmented powder creams and others.

Requests for Technical Date File F-3 should be sent on business stationery to L. Sonneborn Sons, Inc., White Oil and Petrolatum Division, 88 Lexington Avenue, New York 16, N. Y.

Nonsugar Cherry Vehicle

A formula for a cherry vehicle, to be used when a nonsugar vehicle is desired, has been developed at Rutger's University College of Pharmacy. As cited in the Journal of the American Pharmaceutical Association, *Practical Pharmacy Edition (8:83, 1947), it consists of:*

Acacia	150 Gm.
Cherry flavor	1 cc.
Solution of amaranth	3 cc.
Soluble saccharin	1 Gm.
Sodium benzoate	1 Gm.
Glycerine	300 cc.
Distilled water, to make	1000 cc.

Improved Glycerine Suppositories

C. Blum and H. Kasermann (*Pharm. Acta. Helvet.* 21:233, 1946) have observed that the glycerine suppositories of the Swiss Pharmacopoeia, which contain cocoa butter, are unstable and are not homogeneous. Both stearate and gelatin preparations vary in water content with the humidity of the atmosphere. After investigation, these workers found that the most satisfactory results were obtained with the following formula:

Gelatin	8 Parts
Water	12 "
Glycerine	80 "

They stress that, in view of the variation in the strength of glycerine, it is essential to ensure that the actual content of anhydrous glycerine is between 66.5 and 71.0 per cent. A method of assay for glycerine is given.

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Coordinated research started in 1929 has resulted in the production of a new morphine derivative—metopon hydrochloride (methyldihydromorphinone hydrochloride), one of many compounds made and studied in this coordinated effort. In the report appearing in the *Journal of the American Medical Association* (134:291, 1947) it is pointed out that chemically metopon is a morphine derivative; pharmacologically it is qualitatively like morphine even to the properties of tolerance and addiction liability. Chemically metopon differs from morphine in three particulars: one double bond of the phenanthrene nucleus has been reduced by hydrogenation, the alcoholic hydroxyl has been replaced by oxygen and a new substituent, a methyl group, has been attached to the phenanthrene nucleus. Studies made thus far indicate that pharmacologically metopon differs from morphine quantitatively in all its important actions—its analgesic effectiveness is at least double and its duration of action is about equal to that of morphine; it is nearly devoid of emetic action; tolerance to it appears to develop more slowly and to disappear more quickly and physical dependence builds up more slowly than with morphine; therapeutic analgesic doses produce little or no respiratory depression and much less mental dullness than does morphine, and it is relatively highly effective by oral administration.

In addition to animal experiments these differences have been established by extensive employment of the drug in two types of patients: people addicted to morphine and others (patients dying of cancer) needing prolonged relief from pain but without previous experience with opiates. In morphine addicts metopon appears only partially to prevent the impending signs of physical and psychic dependence. When the drug is administered orally to patients with incurable cancer it gives adequate relief from pain with little mental dulling, without nausea or vomiting and with slow development of tolerance and dependence. The high analgesic effectiveness of oral doses (with the elimination of the disadvantage to the patient of hypodermic injection), the absence of nausea and vomiting even in patients who vomit with morphine or other derivatives, the absence of mental dullness and the slow development of tolerance and dependence place metopon in a class by itself for the treatment of the chronic suffering of cancer. It is for that purpose exclusively that it is being manufactured and marketed.

Metopon will be available only in capsule form for oral administration and it will be distributed for no other purpose than chronic relief of pain in cancer cases.

Vitamin D Aerosols for Tuberculosis

According to a report from Paris appearing in the *Journal of the American Medical Association* (134:313, 1947) L. Binet and H. Bour have used oxygenosols of vitamin D_2 in the treatment of serious pulmonary tuberculosis. Of 10 patients treated in this way, 6 (among whom were 2 with miliary tuberculosis and 1 with chronic phthisis in its terminal stage) did not respond. Four were obviously transformed. In the 4 patients the return of temperature to normal has been observed and by 2 the return to normal of the sedimentation rate. Cholesterol, which had diminished, regularly increased up to almost normal figures. Sputum diminished and became more fluid. On the whole, the inhalations of aerosols of vitamin D_2 have a general action, which enables the lesions to die away and then cicatrize. A mechanical therapy which could not be attempted previously becomes applicable. After a previous observation of eight days the patient receives the first day one to two inhalations of 5 mg. of vitamin D_2 and then three inhalations per day, which are continued up to a total dose of 700 to 750 mg. The treatment therefore lasts about fifty days. The authors have used vitamin D_2 in an alcoholic solution. Every week, during treatment, they controlled the weight, the urea content and the calcium in the blood and urine; they also made a blood cell count and a differential leukocyte count.

Benadryl for Ivy Poisoning

Benadryl, the drug being widely used for treating allergy symptoms, has been tried by L. S. Blumenthal and M. H. Rosenberg (*Med. Ann. Dist. Columbia* 16:86, 1947) in treating 14 patients with poison ivy dermatitis. Most of these patients had received local therapy for several days before the institution of benadryl treatment. Four of the patients continued to use the local medication after onset of benadryl treatment. Twelve of the 14 patients experienced great relief from the associated pruritus from four to eight hours after each dose. These patients could be maintained symptom free on 50 mg. doses of benadryl orally every four to six hours. Two patients received moderate relief. The lesions stopped spreading soon after the beginning of treatment in 3 patients and entirely cleared within seventy-two hours. The treatment did not alter the usual course of the rash in the other 11 patients even though the pruritus was controlled. The action of benadryl in these cases lends support to the theory that a histamine-like substance is liberated at the site of skin irritations.

Rutin for Capillary Fragility

The value of rutin, a flavonal glucoside, in the treatment of increased capillary fragility is indicated in a preliminary report by H. S. Zfass (*Virginia Med. Mo.* 74:56, 1947) covering observations made on 13 patients. In his work only patients who showed an increased or borderline capillary fragility were chosen for rutin therapy. The usual dose was 20 mg. orally three times a day. Eight of the 13 patients had considerable hypertension. It was found that rutin restores increased capillary fragility to normal. One of 2 patients who were treated with potassium thiocyanate developed increased capillary fragility, but rutin restored the fragility

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to normal. The use of thiocyanate in the treatment of hypertensive arteriosclerotic heart disease is dangerous once the patient has an increased capillary fragility. The drug is apparently harmless if the capillary fragility remains normal. Once the capillary fragility is returned to normal with rutin, thiocyanate can be used as an adjunct indefinitely without increasing the fragility. Rutin may prove a valuable drug in preventing cerebral vascular accidents and insidious bleedings. The blood pressure was only slightly lowered in 3 of 10 hypertensive patients who received rutin on account of increased capillary fragility, but the retinal hemorrhages of 3 out of 4 patients subsided under treatment with rutin.

Benzedrine for Childbirth Pains

The successful use of benzedrine, also known as amphetamine, for the relief of childbirth pains was announced by S. Abel and S. C. Harris at the recent meeting of the Federation of American Societies for Experimental Biology. As reported in *Science News Letter* (51: 341, 1947), they found that benzedrine not only relieves pain but increases the pain-killing effect of morphine. When both benzedrine and morphine are given, the pain-killing effect is greater than would be expected by adding the separate effects of the two drugs. Equally important, benzedrine stimulates breathing. It was this combined action which led the investigators to try the drug for the relief of childbirth pains. Infants whose mothers received benzedrine with morphine during the first stage of childbirth began to breathe within 42 seconds, on the average, after their chins were out in the air. They cried and had good color and did not need artificial respiration. Many doctors have favored morphine over all other drugs for relieving childbirth pains, but it had the dangerous disadvantage of slowing the breath in the baby. If the results in the 15 cases reported are duplicated, the combination of the two drugs may come into wide use. These workers are also trying benzedrine for pain relief in the late stages of cancer and find it successful.

Present Status of Local Burn Treatment

In a special report in the *U. S. Naval Medical Bulletin* (47:391, 1947), H. L. Pugh reviews the present status of burn treatment. In his opinion, the most notable advancements with regard to the local treatment of burns in recent years have been: 1. The virtual abandonment of tannic acid and other coagulants, along with silver nitrate, the dyes, picric acid, etc. 2. A return to the old emollients, petrolatum, petrolatum and paraffin, boric acid ointment, etc. 3. A fuller appreciation of the importance of protection of the burned area from infection and the prevention of further damage such as may result from allowing burned surfaces to oppose each other. 4. The popularization of the pressure dressing, locally. The rationale of such dressings is based upon three important principles: First, the prevention of circulatory stagnation and of fluid loss, along with support of the past; second, by being left alone, the risk of introducing a secondary infection is greatly reduced; and third, the elimination of the painful ordeal of the repeated changing of the dressings. 5. The pronounced trend toward early skin graft and the popularization of the patch graft. The patch graft method involves removing the split thickness sheet and cutting it up into small pieces rather than using a sheet type of skin graft. Infection is not nearly so likely to prevent a take when the patch graft is used. This also keeps cicatrix or scar formation to a minimum.

Improving Hay Fever Injections

L. C. Lazarowitz (*J. Allergy* 18:104, 1947) believes that the disadvantages of treating hay fever patients, especially more sensitive individuals, with injections is often due to the too rapid absorption of the antigen. He points out that many attempts have been made to slow the absorption of pollen extracts by the addition of various substances known to cause delay. The principle of chilling is presented as a new approach to solve the problem of slow absorption of allergenic extracts. A small ice bag supported by a bandage was applied to the mid-outer part of the arm for fifteen minutes prior to and for fifteen minutes subsequent to the subcutaneous injection of ragweed extract to retard the circulation in and around the site of the injection. Thirty hay fever patients were treated with dosages exceeding three to four times the routine dosage of ragweed extract due to the retardation of absorption following the vasoconstriction of chilling. The chilling procedure is time saving, since it diminishes the number of visits by 40 per cent. Constitutional reactions seldom occurred and no delayed reaction was observed. The treatment gave effective relief of symptoms of hay fever in all treated patients. Chilling renders the injections painless.

New Vitamin in Butter

The "Netherlands Letter" published in the *Journal of the American Medical Association* (133:1299, 1947) summarizes work leading to the discovery of a new vitamin in butter. During investigations at the University of Amsterdam, P. C. B Jensen and J. Boer found that summer butter fat showed a more favorable influence on the growth of young rats than other fats, even winter butter fat. The factor responsible for this action is not identical with any of the known vitamins. The glycerides of the fatty acids from summer butter have, if the unsaponifiable fraction from summer butter is added, a growth promoting action equal to that of summer butter. The factor responsible for this better growth apparently is an unsaturated fatty acid, because the growth promoting action of summer butter fat and of the fatty acids from summer butter fat disappear on hydrogenation. This cannot be due to a diminished food intake or to poor absorption of the fat in the ration having a rather high melting point.

About 2,000 Gm. of methyl esters of fatty acids from summer butter were submitted to accurate fractional distillation. The fraction with eighteen carbon atoms appeared to have growth promoting properties; the corresponding fatty acid fraction of the hydrogenated fatty acids. In describing these researches, A. J. Kentie concludes that vaccenic acid seems to possess all the properties mentioned. Vaccenic acid, discovered in 1928, can be produced from Chinese wood oil. However, it has found that the highest concentration of vaccenic acid is in summer butter fat. This explains why the growth promoting factor of summer butter exceeds the growth promoting factor of winter butter. A fraction consisting mainly of vaccenic acid, separated from the fatty acids of summer butter, appeared to have growth promoting properties if added in a concentration of 1 per cent to rapeseed oil. With due scientific caution, the Dutch investigators state that vaccenic acid is probably one of the growth promoting factors present in summer butter.

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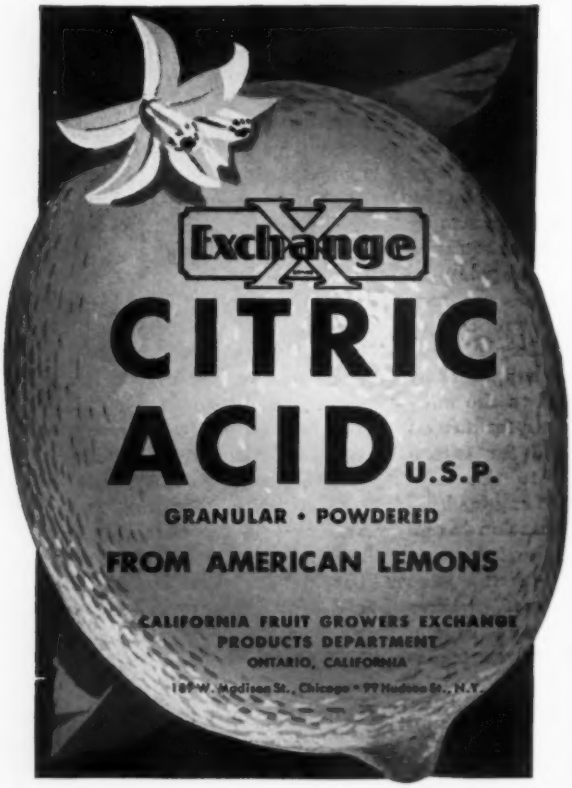

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READERS' QUESTIONS

LANOLIN: I am engaged in writing an article of general interest on the subject of lanolin and I am writing to you to obtain information on certain aspects of its use. I should like to know how long lanolin or wool grease has been associated with cosmetics, ointments, and similar products for use on the skin. Do you think that the use of lanolin in cosmetics and other products will expand or diminish within the next few years? Do you think the advertising of lanolin in various products for the application to the human body exaggerates or underestimates the true values derived from the lanolin contained therein? Elizabeth.

Lanolin, as such, did not come into use until about 1882, when two German chemists patented a process for refining crude wool grease. As was pointed out in the article in this publication (June 1946), crude wool grease has been used since ancient times for treating skin conditions. I think there is a definite trend toward the wider use of lanolin and lanolin derivatives in the cosmetic field and that this trend will continue. Improvements in lanolin production and the separation and utilization of lanolin derivatives is constantly expanding. In my opinion, advertisers of lanolin containing products tend to understate the advantage of using this material.

KARAYA IN CURLING PREPARATIONS: Please advise us concerning formulas and processes relating to the use of gum karaya in hair preparations. Pittsburgh

Gum karaya finds its most important use in the preparation of wave setting lotions or curling fluids. These are provided as powders or as liquids. A karaya-employing curling powder can be made from:

Powdered gum karaya	**93.00**
Methyl parahydroxybenzoate	**6.00**
Color water soluble	**0.02**
Alcohol	**0.73**
Perfume	**0.25**

Mix the preservative and the gum. Mix the color and the perfume with the alcohol and spray over the gum mixture while it is being mixed. When uniform color distribution has been effected, spread the gum out and allow the alcohol to evaporate.

If you desire a fluid, the following formula is indicative:

Gum karaya	**1.75**
Water	**90.75**
Methyl parahydroxybenzoate	**0.25**
Perfume	**0.25**
Alcohol	**7.00**

Mix the gum and half the alcohol and stir the mixture into the water. Strain if necessary. Add the perfume and preservative dissolved in the rest of the alcohol.

HAIR RINSES: We are very much interested in preparing and marketing a liquid hair rinse. We would prefer a preparation that is odorless and with a considerable amount of cleaning and softening properties. Can you give us such a formula? Camden.

Mildly acid solutions are used as hair rinses in most cases and a typical formula for such a hair rinse might consist of:

Tartaric acid	**15 parts**
Citric acid	**15 "**
Lactic acid	**2 "**
Alcohol	**40 "**
Water, to make	**100 "**

Dissolve the acids in water with the aid of heat, cool and dilute with alcohol which contains the perfume. Filter bright after standing for a week. Use plastic closures.

It has been suggested that a very efficient rinse can be prepared by dissolving one-half to one per cent of sodium hexamethphosphate (Calgon) with water.

DEPILATORIES: We are interested in obtaining a good formula for a depilatory. It would be essential that the depilatory be odorless and quick-acting. Providence.

Practically all depilatories which are available for general use are based on sulfides, all of which produce a definite, unpleasant odor and which require great care in their use. The so-called odorless types of depilatories which have become popular in recent years are almost wholly controlled by patents. If you are interested you may check British Patent 484467, U. S. Patent 1973130 and U. S. Patent 2352524.

However, perhaps an epilating wax may satisfy your requirements. If so, I would suggest that you try the following:

Light colored rosin	**52.0**
Yellow beeswax	**25.0**
Paraffin	**17.0**
Petrolatum	**5.0**
Perfume	**1.0**

Melt the rosin and the waxes, mix and add the petrolatum, then when the temperature drops to about 60° C., add the perfume and pour the melted mass into suitable molds. When this wax is used it is melted and painted over the surface to be dehaired.

Perfumer's Shelf

Production of Synthetic Menthols

Shortages of peppermint oil during the war greatly stimulated the production of synthetic menthols. The synthetic product, *l*-menthol is said to be indistinguishable from natural menthol. More recently this has been challanged by a rival synthetic, *dl*-menthol, whose qualities have been greatly improved. Following a discussion of the economic factors and the chemistry of menthols, Y.-R. Naves (*Manuf. Chem. & Manuf. Perf.* 17:525, 1946) has presented a comprehensive resume of the materials and methods employed. According to this noted authority, optically active menthols are synthesized from starting materials derived from pulegone, piperitone and citronellal, and inactive menthols from thymol and terpineol.

Production of menthols from pulegone is by no means new, but the method received renewed interest in Europe during the abnormal conditions of 1940-1944, since pulegone is obtained from Spanish and Portuguese pennyroyal oils. It is accompanied in these oils by some *l*-menthone, *d*-isomenthone and a dehydropulegone to which the author has given the name of piperitenone. The latter leads to inactive menthols, and a fractional distillation results in complete separation of the menthones and pulegone, source of the active menthols and piperitenone.

Hydrogenation of pulegone over the usual catalysts gives a preponderating proportion of isomenthone. The mixture of saturated products is particularly rich in isomenthol and neoisomenthol and the isolation of menthol in acceptable quality is a relatively costly matter.

The most important source of piperitone is the essential oil of *Eucalyptus dives*. This ketone is readily racemized by heating. The optically active substances is isolated by careful fractional distillation and by crystallization at very low temperature or in the form of a phosphoric acid complex. Hydrogenation of active piperitone to menthones is performed under the mildest conditions because of its instability. Catalysts, based on copper, nickel and magnesium are used. Their employment leads to preponderating formation of *d*-neoisomenthol relative to *d*-isomenthol, the latter being most difficult to antimerize.

However, from the standpoint of technical importance the production of menthol from citronellal surpasses in interest that from pulegone or piperitone.

The *d*-citronellal of Ceylonese or Javanese citronella oils is first cyclized to isopulegol under conditions giving a preponderance of *l*-isopulegol over *d*-neoisopulegol. Hydrogenation of this mixture then gives essentially a mixture of *l*-menthol and *d*-neomenthol containing very little isomenthol. The two latter are subjected to antimerization. The *dl*-citronellal extracted from oil of *Eucalyptus citriodora* or made by partial dehydrongenation of citral leads to a mixture of racemic forms.

Thymol was one of the first materials used in menthol synthesis after a long eclipse by methods using piperitone and citronellal as starting points, the thymol conversion has regained its importance, thanks to the development of a technical process for thymol synthesis from meta-cresol. The crude hydrogenation product is a mixture of roughly 45 per cent *dl*-menthol, 50 per cent *dl*-neomenthol and 5 per cent *dl*-isomenthol. The last two are treated by antimerization.

Dihydroterpineol is also used as a starting point for menthols. The essential intermediate is Δ_3-menthene, a dihydroterpene formed by isomerization of dihydroterpinolene. Dehydration of dihydroterpineol and isomerization are effected in one stage by treatment with sulphuric or phosphoric acid, or by passage in the gas phase over acid dehydrating catalysts. Δ_3-Menthene can be oxidized to menthenols and menthenone. Hydrogenation of menthenols gives a mixture of menthol and neoisomenthol (cis-menthenol) or a mixture of neomenthol and isomenthol (trans-menthenol). Another procedure consists in conversion of the menthene into chloro-3-menthen (by treatment with chlorine, thionyl chloride or sulphuryl chloride), followed by preparation of the menthenols or their esters and finally of the menthols. The most closely studied route is the preparation of epoxy-3,4-menthene by direct oxidation or through 3,4-menthene glycol, isomerization of this to menthone and then hydrogenation to menthol.

Study of Sumatra Benzoin

In their investigations L. van Itallie and A. Harmsa (*Pharm. Weekblad* 81:123, 1946 were successful in positively identifying benzoic and cinnamic acids and cinnamyl alcohol in a Sumatra benzoin, *Styrax paralleloneurus*. The presence of coniferyl alcohol could not be established with certainty although it is probably present. They also isolated a previously unknown cinnamic acid ester, melting 113—115°, and having the formula $C_{20}H_{31}O_3$. It is not a conferyl alcohol ester as shown by the lack of a methoxyl group and the resistance of the alcohol to oxidation in the presence of light.

New Compounds in Wild Clove

In studies on wild-growing clove varieties (*Eugenia caryophyllata* Thung.) in Java, T. Meyer (*Rec. Frav. chim* 65:843, 1946) found that the essential oil content of the plants of the Moluccas ranged from 3 to 3.5 percent. This is much less than that of cultivated cloves; the essential oil content of which ranges from 16.9 to 23.2 per cent. The physical constants of the essential oil of ten wild-growing varieties are tabulated in the report. Chemical analysis showed the absence of eugenol, which is present in ordinary clove oil to the extent of 64 to 85 per cent. However, the presence of two different compounds was determined. The first of these compounds ($C_{11}H_{10}O_4$) was named eugenin. Melting at 119 to 120°C, its indentity was established as 7-methoxy-5-hydroxy-4-methylcoumarin. The second compound ($C_{10}H_{12}O_4$) was identified as 2, 6-dimethoxy-4-hydroxy-acetophenone, melting at 98°C, and was named eugenone.

Booklet on Scientific Odor Control

A booklet, "Scientific Odor Control" has recently been issued by Cargille Scientific Inc., 118 Liberty Street, New York 6, N. Y. In the main, the publication provides instructions on the use of the Crocker-Henderson odor classification set. In addition it provides background data on the Crocker-Henderson system of odor classification which permits the description of the ordor of any liquid or solid in terms of the odors of standard reproducible sub-

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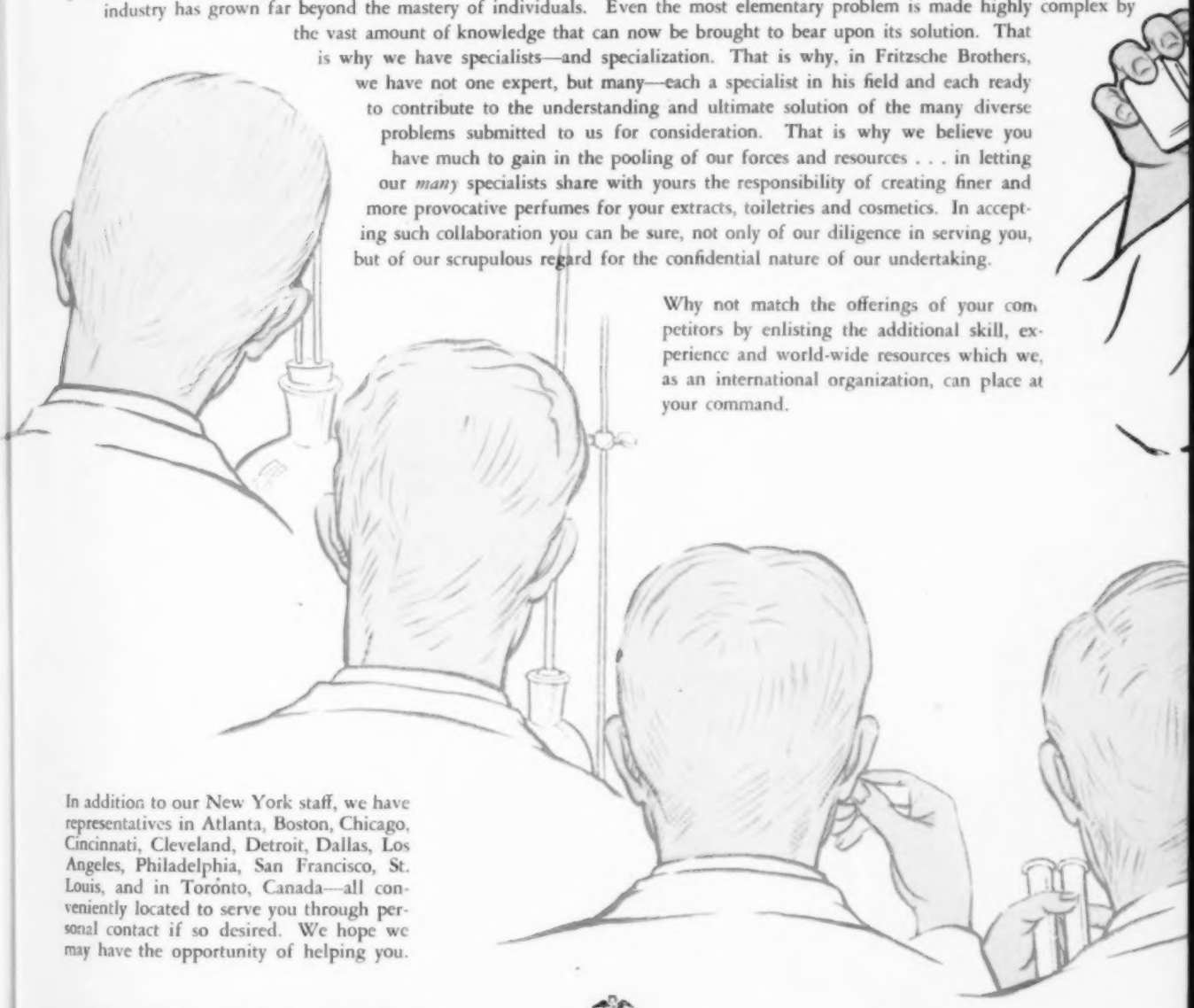

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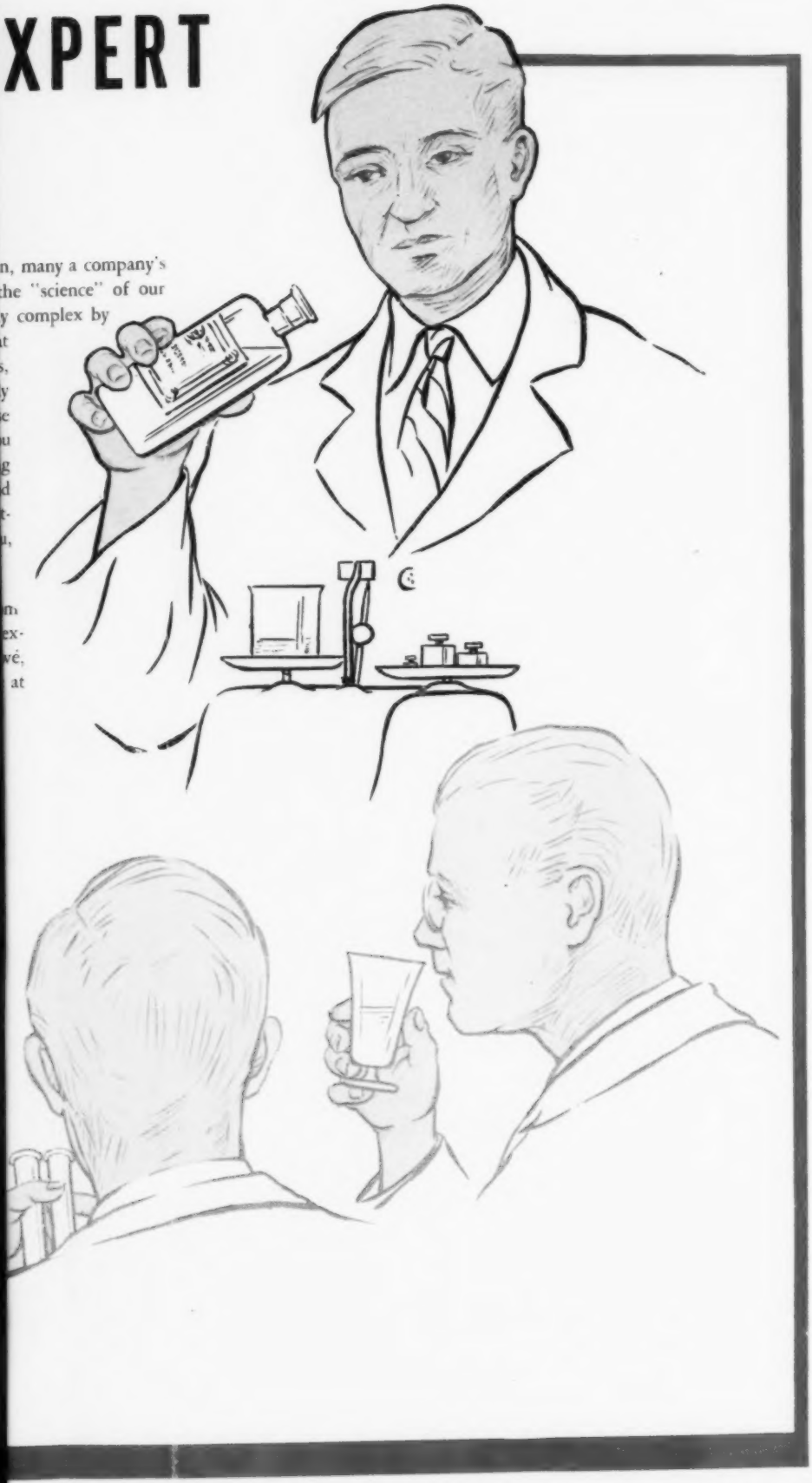

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stances. By this method a complete ordor formulation may be obtained as a four-digit number which can be duplicated from person to person. Originally developed in 1926 and continously improved, refined and simplified, this system of classifying odors now makes it possible for chemists, purchasing agents, quality control engineers and inspectors to have odor standards for reference, with which operators at different localities can similarly classify odors.

Indian Eucalyptus Oil

According to B. V. Ramaswamy, P. L. Narasimka Rao and P. C. Guha (*J. Indian Inst. Sci.* 28A:57, 1946), about 22,000 gallons of eucalyptus oil is produced annually in India. In their investigations, freshly distilled oil from the leaves of *Eucalyptus globulus*, grown in Nilgiris, was gound to have the following characteristics:

Specific gravity	**0.902**
Index of refraction	**1.4608**
Specific rotation	**9.68°**
Acid value	**6.3**
Saponification value	**37.5**
Saponification value after acetylation	**92.2**

The oil was insoluble in 10 volumes of 70 per cent alcohol and the phellandrene test was negative. The oil was found to contain: 2.5 per cent of lower boiling alcohols, aldehydes, ketones and acids; 24 per cent pinenes, 62 per cent cineole, about 0.4 per cent pinocarveol, about 0.5 per cent cuminaldehyde, 5 per cent sesquiterpene alcohols, 1.0 per cent aromadendrene, 0.3 phenols, and a residue of approximately 3 per cent, consisting mostly of aluminum oxide. The color of the oil was pale yellow and the yield was 0.9 to 1.2 per cent. It is believed that by careful fractionation, the oil may be brought within the specifications of the British Pharmacopoeia.

Japanese Studies of Essential Oils

Reports on Japanese investigations of essential oils, held up by the war, have been reviewed in recent issues of *Chemcial Abstracts*. One of these studies by Yoshibaru Ogata (*J. Chem Soc. Japan* 63:416, 1942) describes the reaction products of linalool obtained by the catalytic action of reduced copper. Two new compounds have been obtained by passing linalool over the copper at 300° C. The first, called isomycorene, is presumed to be 2, 6-dimethyl-1, 3, 7-octatriene. It has the following physicial constants:

Boiling point at 50 mm. pressure	**79-80° C.**
Boiling point at 764 mm. pressure	**166.0° C.**
Specific gravity at 25° C.	**0.8030**
Index of refraction	**1.4637**
Specific rotation	**4.50°**
Molecular refraction	**46.70**

The second product, mycorene, is presumed to be 2, 6-dimethyl-2, 4, 7-octatriene. It has the following constants:

Boiling point at 50 mm. pressure	**89-90° C.**
Boiling point at 764 mm. pressure	**174.5° C.**
Specific gravity at 25° C.	**0.8124**
Index of refraction	**1.4730**
Specific rotation	**1.55°**
Molecular refraction	**46.96**

In another report in the same journal (p. 1443) Yasuji Fujita and Saburo Ohashi report on the dehydrogenation of *d*-limonene with chloranil to yield para-cymene. The mixture consisting of 100 Gm. *d*-limonene and 100 Gm. chloranil is heated for seven hours in an oil bath. By steam distillation, 40 Gm. of oil is obtained. The oil is heated with 50 Gm. of chloranil for eight hours. Steam distillation of the reaction product is carried out. By fractional distillation under reduced pressure, 16cc. of para-cymene is obtained. It had the following physical properties:

Boiling point at 20 mm. pressure	**68-71° C.**
Boiling point at 770 mm. pressure	**176° C.**
Index of refraction	**1.4888**

Oil of Cinnamonum Kanahirai

As part of his studies of the volatile oil of *Cinnamonum kanahirai*, T. Naito (*J. Chem. Soc. Japan* through *Chem. Abstr.* 41:3586, 1947) investigated the high-boiling fractions of the oil. The acidic portion consists of palmitic acid, piperonylic acid, cumic acid, and caprylic acid. A new monobasic acid was found. Called "shogyu acid," with the formula $C_{16}H_{18}O_2$, its constants are:

Boiling point	**259° C.**
Specific gravity	**0.9841**
Index of refraction	**1.4641**
Specific rotation	**38.80°**

The neutral portion consistes of *d*-cadinene, bisabolene, alpha- and gamma-campholene, and two new sesquiterpenes, alpha- and beta-shogyuene. The physical constants of alpha-shogyuene ($C_{15}H_{24}$) are:

Boiling point	**261.5° C.**
Specific gravity	**0.8602**
Index of refraction	**1.4878**
Specific rotation	**–0.56°**

The second new compound, beta-shogyuene ($C_{15}H_{24}$) has the following constants:

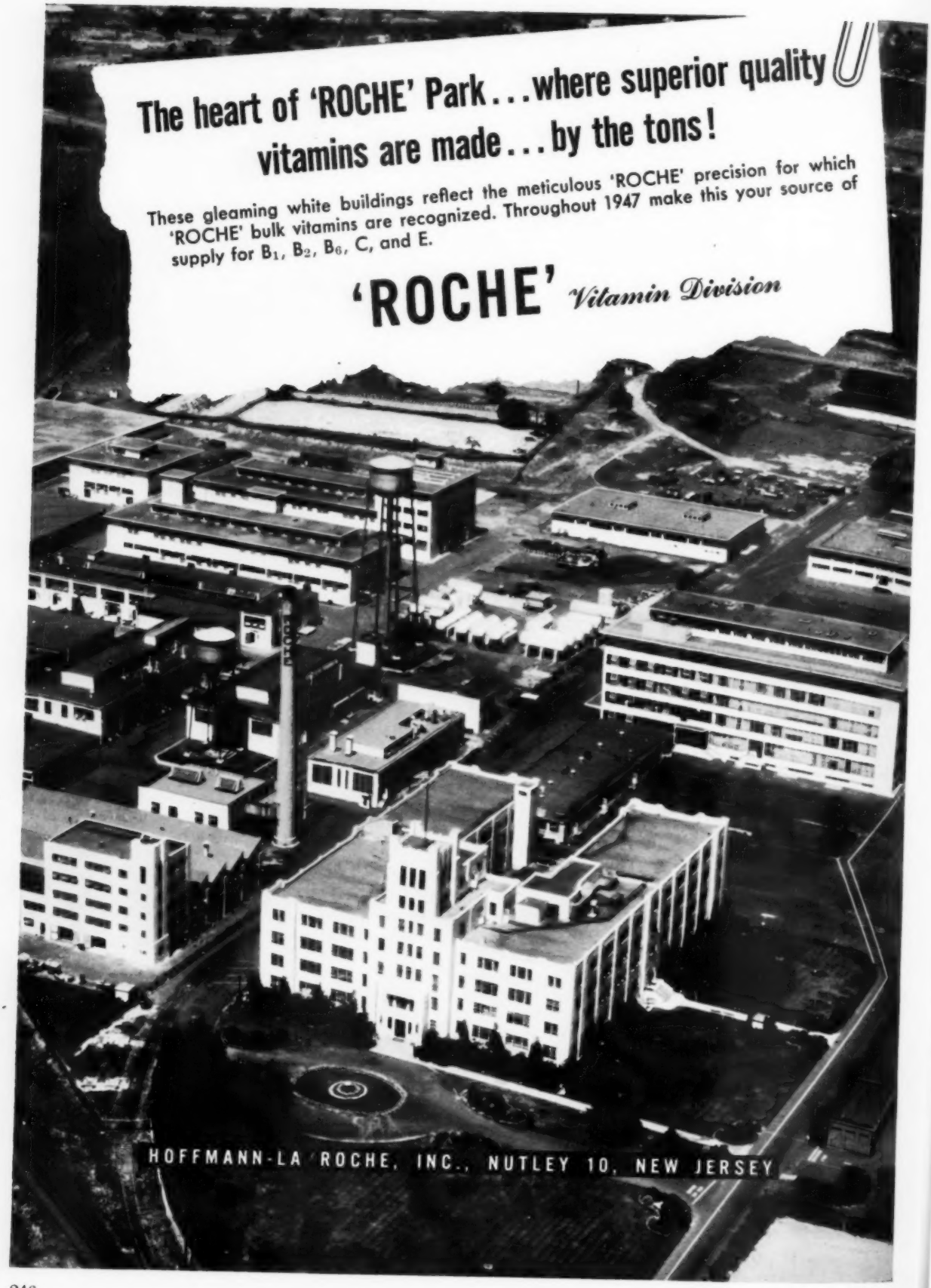
Boiling point	**292° C.**
Specific gravity	**0.9331**
Index of refraction	**1.4981**
Specific rotation	**–28.98°**

Trinidad Lemongrass Oil

In connection with the development of an industry in Trinidad, experimental trials have been undertaken in the cultivation of lemongrass and satisfactory yields have been obtained. A sample of the oil prepared by steam distillation from the grass produced in these trials was received at the Imperial Institute and was examined chemically by D. J. Cosgrove and H. T. Islip (*Bull. Imperial Institute* 44:290, 1946). The oil, after filtration through paper, was clear but very dark in color. It was found to have the following constants:

Specific gravity	**0.8969**
Optical rotation	**–0.18°**
Refractive index	**1.4880**
Aldehydes (bisulfite method)	**82.8%**
Aldehydes, as citral (hydroxylamine method)	**80.4%**
Solubility is 70 per cent alcohol at 15.5° C.	**Soluble in 2.3 vols., with slight opalescence**

Comparison of these values with those of commercial lemongrass oils from East Indian and West Indian sources (as given in Gildemeister's text) showed that the sample of lemon grass oil from Trinidad is of the soluble East Indian type. Because of the oil's solubility in 70 per cent alcohol, Cosgrove and Islip are of the opinion that it would be suitable for direct use in perfumery, though the dark color might be a disadvantage, and the high citral content rendered the oil particularly suitable for the isolation of that aldehyde for the manufacture of ionones. The oil should be able to compete with Cochin lemongrass even in a normal market. In view of the satisfactory report, efforts are being made to extend the cultivation of lemongrass in Trinidad, and a suggestion has been put forward that the peasants should be encouraged to grow the grass in otherwise wasted corners and sell their produce to a central buying agency.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PURCHASING DEPARTMENT

Exports Strengthen Pharmaceutical Market. Glycerin Producers Out for Business. Menthol Market Weaker.

March witnessed the greatest dollar export volume of medicinal and pharmaceutical preparations to date, shipments totaling $16,876,734—almost one-third greater than during March 1946. January-March drug shipments of $43,359,340 about equalled those of the full year in 1942.

Production of ethyl alcohol at industrial alcohol plants in the United States during the first three quarters of fiscal 1947 was 174,039,000 proof gallons compared with 266,410,000 proof gallons for the corresponding period in fiscal 1946.

Portuguese exports of crude tartar material during 1946 were substantially lower in both quantity and value than those in 1945. For the period January-November 1946 they totalled 1,125 metric tons valued at $240,000 compared with 4,591 metric tons with a value of $470,400 in 1945.

The beeswax market is easy and prices are on the decline. March imports of 183,000 pounds were low for any month during the past two years. Receipts for the first quarter of 1947 totaled 853,000 pounds compared with 2,465,000 during the first quarter of 1946.

Glycerin Steady

No further price developments came in refined glycerin. The recent and very sharp decline was said to have put the article well into line with prevailing prices on raw material. Demand was very good and contributed to the present stable price position. Future developments will turn mainly on what happens to tallow and soapmakers' oils.

Export and import controls have been extended on glycerin until February 29, 1948. Some export licenses are being issued for small quantities of about 5,000 pounds or less but difficulty is likely to be encountered in obtaining licenses for larger amounts.

Recent sharp price declines in glycerin have enabled producers of the soap by-product to recapture a large sha.e of the $10,000,000 market in the tobacco industry, lost during wartime to diethylene glycol, producers said.

Manufacturers of diethylene glycol, on the other hand, feel that their product, selling at almost half the price of glycerin, has made permanent inroads in the tobacco market, where approximately 20,000,000 pounds of glycerin or diethylene glycol are used annually as a moistening and conditioning agent.

To prove it, at least four major producers of glycol chemicals have ambitious expansion programs in progress to boost production of diethylene glycol. The battle for favor is not yet over, however, both glycerin and glycol producers feel, although the trend among tobacco purchasing agents appears to be back toward glycerin.

Although diethylene glycol markets at 15c per pound in drum carlots or 13½c per pound in tanks, less than half the price for glycerin, large tobacco companies are said to be in the market for glycerin in volume once more and the 15c price gap has not been too serious a stumbling block. Diethylene glycol is cheaper but toxicity has presented a bothersome problem. Glycerin, on the other hand, is said to be nontoxic, and even has a certain amount of food value.

Menthol Down

The spot market decline in menthol is attributed to unexpected arrivals of this material totaling approximately 50 tons from Brazil at a time when consuming demand is normally at a low level. The appearance of the fresh lots estimated in value at $750,000 brings total stocks here close to 75 tons, according to trade estimates.

The late reduction establishes the spot market at from $8.20 to $8.25 per pound in contrast to $8.50 to $8.75 per pound prevailing several weeks ago.

Trade factors are still bullish regarding the longer term outlook, however. At the moment the spot supply appears sufficient to meet demands, but with no more goods to arrive from China and offerings generally restricted from Brazil, this market is likely to grow considerably stronger when large consumers begin to enter the market in October.

• Prices quoted in this section were current on the first of this month.

Wood Is Source for Ethyl Alcohol

An experiment in converting wood waste into ethyl alcohol has proved practical, the Willamette Valley Wood Chemical Co. said. Company officials after completing trial operations in the $3,000,000 war-built plant at Springfield, Oregon, said the results warranted continued operation of the plant.

The factory is due to be listed as war surplus, and the chemical company is expected to negotiate for it. Originally sponsored as a war production project, the alcohol from wood research was continued after the war by the company's official, Oregon lumbermen interested in finding a use for the waste of sawmills and forests.

The plant can produce 10,000 gallons of 190 proof ethyl alcohol a day, with a possibility of many commercial by-products.

More Molasses Due

Substantially greater quantities of blackstrap molasses will be available to producers of industrial alcohol during the latter half of this year because of optimistic Cuban crop predictions, industry observers said.

The greater availability of molasses will ease, to some extent, the recent heavy pressure on corn and other grains which have been the economically popular raw materials for production of the solvent.

Total tonnage of molasses available for processing in the third and fourth quarter will not be sufficient to meet the industry's needs, however.

Even if present quotas were doubled, molasses would not be in a thoroughly comfortable supply position, it was stated.

A noticeable drop in the use of corn by alcohol distillers was evident in May as sizable quantities of blackstrap, bought on bid during March and early April were delivered for processing.

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Downward Trend in Essential Oils Unchecked. Supply Position Weakens Citronella Market. Crude Drugs Easy.

The price trend in the market for essential oils and aromatic chemicals was entirely downward during the period under review. In the main, reductions were the result of increased supplies of foreign oils and a bettermen' in production of aromatics made from raw materials that of late had undergone substantial declines in price.

Essential oils continued to reach this market in excellent quantity. Export trade with foreign markets was well maintained during the period reviewed, a fact likely to result in the continued arrival of important quantities of oil in the future. Restoration of normal stocks of oils originating in the Netherlands East Indies was further delayed by the still unsettled political and economic differences between the Indonesian nationalists and the Dutch authorities.

Ceylon Citronella Down

Good supply position of both types of citronella oil was reported unchanged with the Ceylon oil still said to be available in substantially larger quantities than the Java product. Included in citronella oil imports during the period was shipments from the Dominican Republic, Colombo and Guatemala.

Ceylon's exports of citronella oil during the first quarter of 1947 increased to 313,330 pounds valued at 1,794,614 rupees, as compared with 193,840 pounds valued at 1,717,544 rupees in the preceding quarter.

Exports of citronella oil from Ceylon to the United States and British India in the March quarter of 1947 showed the largest increases, whereas exports to the United Kingdom were reduced to approximately one-half of the total in the preceding quarter. Private British firms reportedly were opposed to the high prices formerly paid for the oil by the Ministry of Food.

During the first quarter of 1947 the United States imported 116,631 pounds of citronella oil valued at 674,955 rupees, as compared with 48,046 pounds valued at 307,200 rupees in the last quarter of 1946. British India's imports of the oil expanded from 363 pounds valued at 14,245 rupees in the last 3 months of 1946 to 64,394 pounds valued at 364,513 rupees in the first quarter of 1947.

Imports of citronella oil into the United Kingdom from Ceylon during the first quarter of 1947 declined to 41,769 pounds valued at 239,711 rupees as compared with 80,129 pounds valued at 964,817 rupees in the preceding quarter.

The Union of South Africa also took far smaller quantities of citronella oil from Ceylon in the first quarter of 1947 than in the last quarter of 1946, imports totaling 1,988 pounds valued at 10,178 rupees, and 12,388 pounds valued at 83,890 rupees, respectively.

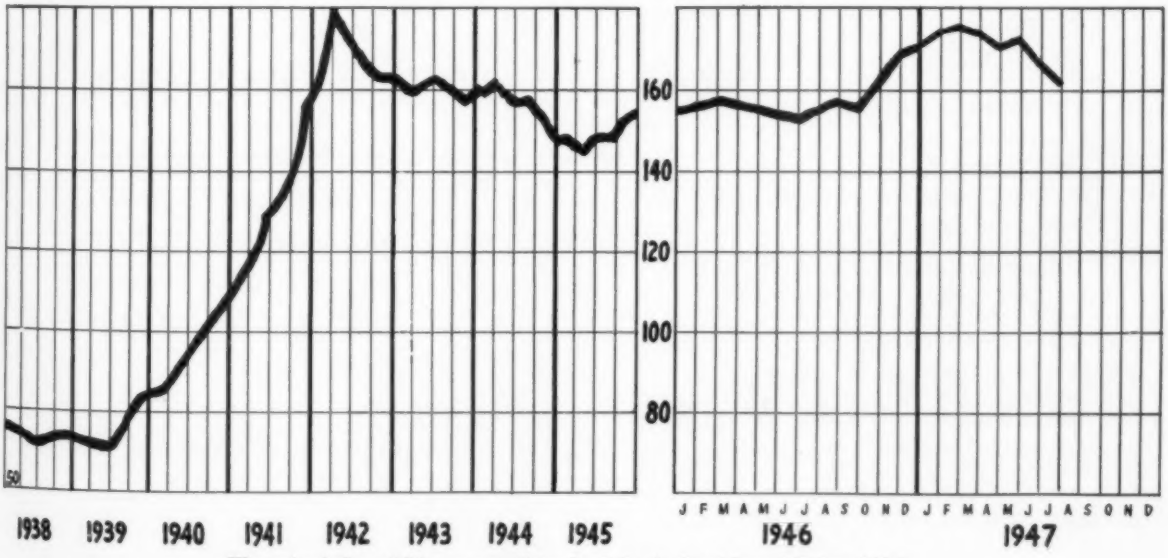
The average price of citronella oil during the first quarter of 1947 was less than in the preceding quarter, the average price during January and February 1947 being 5.86 rupees ($1.77) per pound. United States firms again are becoming interested in the Ceylon market as the price of the oil is lowered. However, certain Ceylon firms are concerned about the probable future attitude of the United States customs toward the percentage of petroleum distillate permissible in fair-average-quality oil.

The U. S. Agricultural Attache in Guatemala has been receiving a surprisingly large number of inquiries as to sources of citronella planting stock, and requests for information on cultural and processing methods. Citronella acreage is expanding, and many new growers are entering the field. Heretofore expansion in acreage has been rendered difficult by scarcity of planting materials. Some foresighted individuals have planted fields for the sole purpose of selling citronella planting stock at rather high prices.

The National School of Agriculture in Guatemala recently presented a short course in agriculture for 120 small farmers. It is possible that through such efforts the cultivation of essential oil-bearing plants might be expanded. Citronella and lemon grass could be developed by small-scale producers for cash and soil-erosion purposes.

Agricultural research is being carried on in Guatemala both by private and foreign agencies.

50 Raw Materials—Weighted Price Index. 1926=100.



The price index of fifty commodities for July declined from 165.1 to 161.1.

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UP

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Iodine resublimed 25c
Lime oil dist. 25c
Menthol 30c
Potassium iodide 20c
Witch hazel leaves 2c

DOWN

Almond oil sweet 20c
Anethol 7c
Asafetida 10c
Balsam Peru 10c
Belladonna leaves 35c
Benzoin gum Sumatra 5c
Bergamot oil 10c
Burdock root 10c
Cedar leaf oil 10c
Cedar wood oil 5c
Citronella oil Java 50c
Cohosh root 2c
Elder flowers 8c
Galbanum gum 10c
Gamboge gum 5c
Geraniol $1.75
Geranium oil African $1.00
Ipecac root 5c
Irish moss 6c
Iso Eugenol 10c
Juniper berry oil $1.00
Lime oil expressed $3.50
Linalool 35c
Myrrh gum 3c
Psyllium seed, blond 5c
black 10c
Rhubarb root HD 5c
Sarsaparilla root Honduras 5c
Sassafras oil artificial 20c
Vetivert oil Java $2.00
White Pine bark rossed 7c
Ylang Ylang Bourbon $1.00

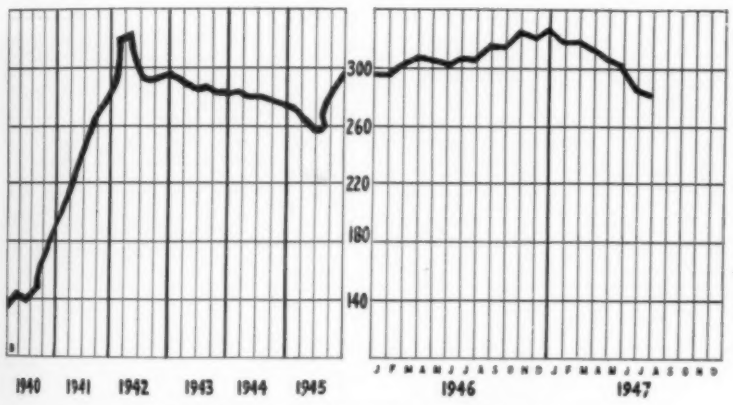
Sells Agar Agar

Reconstruction Finance Corp. announced that its subsidiary, the U. S. Commercial Co., has sold on sealed bids 175 bales of agar agar.

This commodity was imported from Japan pursuant to arrangements made between U. S. Commercial Co., the Department of State, the War Department, and the Supreme Commander for the Allied Powers (SCAP) for the handling of Japanese exports.

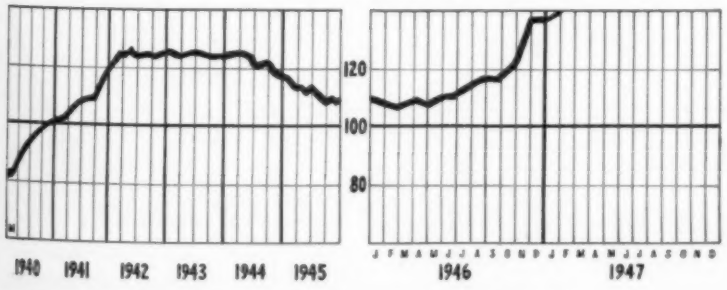
The highest, lowest and average of the successful bids received per pound for the 175 bales of agar agar were as follows: highest bid, $2.96; lowest bid, $2.71; average bids, $2.76.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index declined from 292.9 to 290.1. Belladonna, Ipecac and Rhubarb were lower.

15 Medicinal Chemicals—Weighted Price Index. 1926=100.



The medicinals index declined from 168.1 to 167.7. Menthol was lower.

Iodine Preparations Up

Quotations on resublimed and potassium iodide were advanced 20c to 25c per pound during current trading. Both items are widely used in medicine and various industrial processes. The increase in price had been more or less expected following the advance in March of 30.4c per pound in crude iodine costs.

The new price for resublimed iodine is now $2.35 per pound in 25 pound jars. Potassium iodide is now quoted at $1.95 per pound in 250 pound drums, and $1.98 per pound in 25 pound drums.

Sodium iodide, iodoform, and tincture of iodine have not as yet been affected by higher crude material costs.

Mercury Steady

Locally sellers continue to quote from $84 to $87 per flask for spot mercury. The world price remains unchanged at $65 per flask f.o.b. Spanish or Italian mines. Any improvement in demand would probably bring the domestic market on a parity with the world price which is equivalent to about $85.50 per flask.

Production of mercury totaled 6,100 flasks during the first quarter of 1947 despite sharply declining prices for the material, the Bureau of Mines reported.

Consumption totaling 8,200 flasks was considerably above domestic production, however, the bureau reported. General imports for the first quarter totaled 4,190 flasks, while exports totaled 241 flasks.

The substantial volume of mercury imports enabled stocks of the metal to show a sizeable gain. Stocks in the hands of metals reserve totaled 20,884 flasks. Consumers and dealers held 17,100 flasks at the end of the quarter while producers stocks totaled 3,183 flasks, the bureau said.

Cod Liver Oil Output, Norway

Norway's output of cod liver oil in 1947 is expected to reach a record level of 100,000 barrels, according to the press of that country. Agreements for the export of oil have been concluded with many countries, including the Soviet Union and the Eastern Zone of Germany. Several Norwegian firms have begun to export oil in bottles instead of in barrels.

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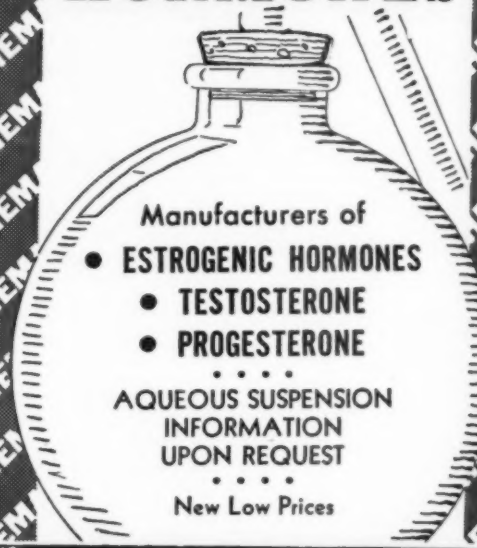

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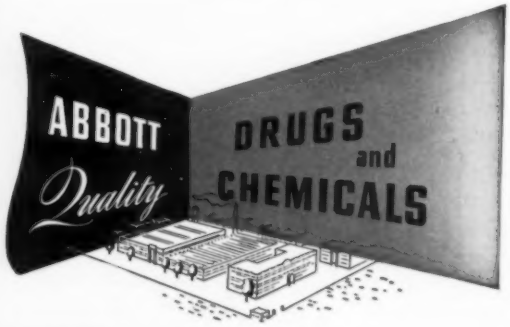

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CRUDE DRUGS

Trading activity in the botanical drug market continues to mark time, with business dealings confined to purchases of crudes for present requirements only. Collection of domestic botanical materials is under way but the number of workers is small owing to the attraction of more remunerative employment in industrial centers.

March receipts of foreign botanicals increased in tonnage by 871,671 pounds or 82 percent over the February total. Botanicals contributing largely to the aggregate increase include aconite, buchu leaves, cinchona bark, coco leaves, gentian, ma huang, opium, psyllium seed, stramonium, and roots, barks and flowers of vegetable origin.

Vanilla Firm

Prices were firm in all directions. Whatever conditions may prevail in primary markets as concerns crop conditions and expected production, it was felt here that it was unlikely that stocks of unsold beans would be any larger during the next consuming season than they were this year. Mexican production may be somewhat larger and that in the French islands somewhat smaller. But no superior supply is expected to reach this market and weakness in replacement costs is believed unlikely.

The 1947-48 vanilla bean crop in Madagascar and the Comoro Islands is estimated at 770,000 pounds, which is substantially less than the 1946-47 crop of 1,100,000 pounds. The decreased production is due largely to unfavorable weather conditions in Madagascar, according to the Office of Foreign Agricultural Relations.

During 1946, Madagascar, including the Comoro Islands, exported 1,440,000 pounds of vanilla beans of which 948,000 pounds were destined to the United States, 330,000 pounds to France, and 162,000 pounds to other countries. This compares with 1945 exports of 1,071,000 pounds and the 1935-39 average of 892,000 pounds annually.

Madagascar stocks of old, inferior quality vanilla beans recently were reported at over 1,000,000 pounds. Since offerings of high quality vanilla probably will not be sufficient to meet the demand there is a possibility that an attempt will be made to market part of the accumulated stocks.

However, OFAR pointed out, Mexico's 1947-48 vanilla bean crop, harvesting of which will begin about November, probably will exceed the 1946-47 crop if weather conditions remain favorable.

The 1946-47 crop is now estimated at 298,000 pounds. This compares with 99,000 pounds for 1945-46 and a peak production of 476,000 pounds in 1940-41.

For the past three seasons droughts have reduced yields substantially. The increased production for 1946-47 is attributed to exceptionally favorable weather conditions and to out-turn from new plantings. Most of the new plantings are in the San Jose Acatino district in the State of Puebla. Production in this State is increasing, but Vera Cruz still supplies the bulk of Mexico's output.

Psyllium Seed Down

A weak spot market prevailed in psyllium seed. The blond, Plantago seed from India dropped to a range of from 26c to 27c per pound. The French, or black seed, also declined sharply to a new low for the movement at 45c per pound.

A consulate report from Bombay, India, estimated the production of psyllium seed in that country for the 1947 season at approximately 125,000 bags of 168 pounds each, or about 9,375 long tons. The husk yield is usually assessed at about 25 to 30 percent by weight of the natural seed. Carryover of the preceding season's crop may not exceed 12,000 bags.

Papain Easy

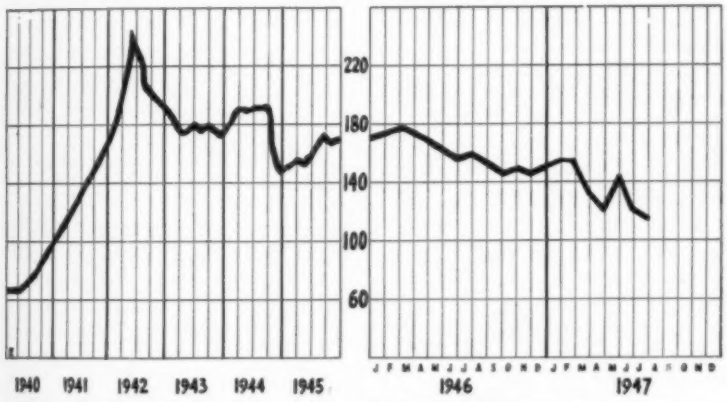
Spot stocks of papain have been gaining of late. Recent importations were noted from the Far East and Africa. Some said that spot prices might be subject to occasional shading.

In Tanganyika an active market and steadily rising prices in the early part of 1947 stimulated the production of papain. Although the wartime restriction on planting papaws is still in force, permission to plant is issued freely on the condition that specified acreages of food crops have been planted and will be maintained throughout the life cycle of the papaw plantings. There is wide interest in this product.

Belladonna Drops

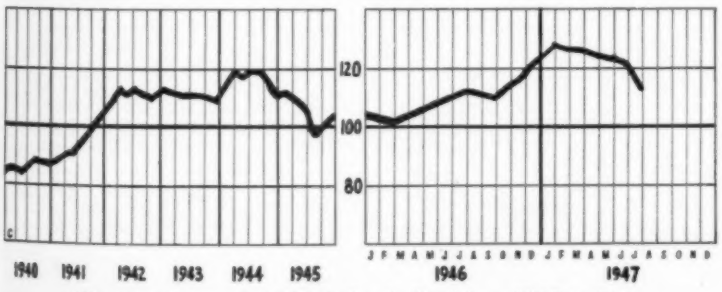
Sufficient belladonna leaves to create an easier market has been released. Although the unsold stocks on spot were far from normal, the article was more available and prices have come down to $1.85 to $1.90 per pound.

15 Essential Oils—Weighted Price Index. 1926=100.



The essential oils index declined from 124.2 to 121.9. Bergamot, Cananga, Citronella and Geranium were down.

25 Cosmetic Raw Materials—Unweighted Price Index. 1926=100



The cosmetic raw materials index declined from 123.0 to 97.5. There were no price advances in this group.

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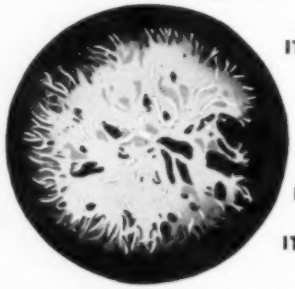

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Industry's Books

The Treatment of Bronchial Asthma, by Vincent J. Derbes, M.D., Instructor in Medicine and in Preventive Medicine, Tulane University of Louisiana School of Medicine, and Hugo Tristram Engelhardt, M.D., F.A.C.P., Instructor in Clinical Medicine, Baylor University College of Medicine, 466 pp., Illus., J. B. Lippincott Co., Phila., $8.00.

This book of composite authorship differs from other treatises on the subject in that the authors have attempted to present asthma not only from the viewpoint of the allergist but also from the standpoint of the general practictioner and specialist in other fields. In Part One the reader is oriented through eight chapters of basic fundamentals, and in the fifteen chapters of Part Two the clinical aspects, diagnosis, and treatment are fully discussed. The role of surgery in bronchial asthma is presented in detail with many illustrations, and the numerous complications as well as cardiac asthma. are adequately covered.

The Interaction of Drugs and Cell Catalysts, by Frederick Bernheim, Ph.D., Professor of Pharmacology, Duke University School of Medicine, Durham, North Carolina, 107 pp., Burgess Publishing Co., Minneapolis, Paper Cover, $2.25.

In this work the author attempts to answer two questions: 1) if a drug alters the activity of a specific enzyme in vitro, how far can the pharmacological effects of the drug be explained on this basis? and, 2) if an enzyme inactivates a drug in vitro, can this explain its fate in the body? For most drugs the correlation between enzyme and pharmacological action is incomplete. For certain drugs it is better than for others, but in all cases more data are needed to explain inconsistencies and to fill gaps in our knowledge. It is, perhaps, the main purpose of this review to emphasize the difficulties in order that further work may prove or disprove the value of this particular method of approach. The first edition of this book was concerned only with drugs that reacted with more or less well defined enzyme systems. This excluded not only a number of drugs that are conjugated, for this process usually requires intact cells, but also those that react with still unidentified enzymes. These are included in the present volume along with certain essential elements which may be considered drugs in the widest sense of the term. Besides these additions almost all the sections have been revised.

Concise Chemical and Technical Dictionary, edited by H. Bennett, Technical Director, Glyco Products Co., Inc., 1055 pp., Chemical Publishing Co., Brooklyn, $10.

About 50,000 definitions are included in this volume, which covers every field of scientific and technical development. It contains chemical, physical, metallurgical, mineralogical, biological, medical, pharmaceutical, mathematical, botanical terms, descriptions of the most important manufacturing processes and machinery, raw materials and finished products, terms used in mechanical, electrical, radio and television engineering, welding and other shop practices, descriptions of common or rare chemicals, etc. A special feature of the dictionary is a compilation of trade-name or proprietary products in the synthetic resin, plastic, metal, rubber, textile, food, pharmaceutical, paint and varnish fields, including emulsifying and wetting agents, plasticers, detergents, accelerators, antioxidants, etc. The physical properties and applications of these trade name products are listed as well as their chemical composition.

The Cooperage Handbook, by Fred Putnam Hankerson, Executive Secretary, The Associated Cooperage Industries of America, Inc., 182 pp., Illus., Chemical Publishing Co., Brooklyn, $3.75.

This handbook should be of assistance to the manufacturer in the choice of satisfactory barrels for shipping his products. It gives all the necessary information on the manufacture of barrels, their proper choice, their handling and storage, when and what kind of lining to use and how to apply it to the barrel. All expert specifications and Interstate Commerce Commission regulations are included.

The Aluminum Cartel, by Louis Marlio, 130 pp., The Brookings Institution, Washington, $1.50.

This is a study of one of the most important international cartels, the author of which was formerly chairman of the Aluminum Cartel, and thus speaks from accurate inside knowledge. In this volume Dr. Marlio considers and gives his answers to the following questions: Was international trade impeded by artificial market restrictions? Was expansion of the uses of aluminum restricted by the maintenance of artificially high prices? Did the comparative stablization of prices in depression periods impede general business recovery? Did the aluminum cartel retard technological progress? Did the cartel encourage inefficiency through protection of high-cost producers? Would government cartels bring price reductions?

A Handbook of Commonly Used Drugs, Including Certain Measures for the Control of Diseases Peculiar to the Tropics of the Western Hemisphere, by Michel Pijoan, B.A., M.D., Director, The Chemical Foundation Laboratory, University of Colorado, and Clark Harvey Yeager, M.D., Dr. P. H., Chief of the Medical Section, Health and Sanitation Division Office of Inter-American Affairs, Washington, 198 pp., Charles C. Thomas, Springfield, Ill., $3.75.

This book is the result of the author's experience in field expeditions where reference material for drug usage is difficult to obtain. It represents the accumulation of notes dealing with drugs, preparations, and techniques which were useful to the writers, arranged in such a way that it might be conveniently used by others. It is a practical up-to-date compendium on drugs, drug preparations, drug usage, and drug techniques and while it is very compact, it is authoritative and thorough.

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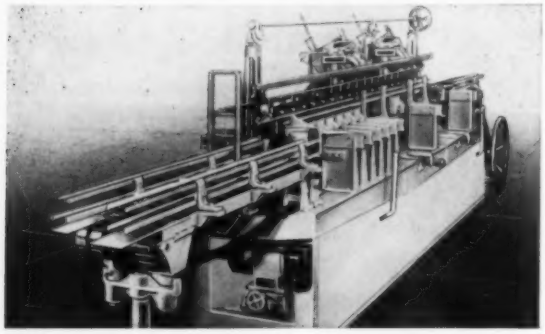

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WORLD LABELERS

Can Cavalcade

(Continued from page 171)

the Somer's plant. These were not the kind with paper labels posted on their sides. The design was part of the metal itself, a mystery topeople who bought a Somers' can. If you couldn't write on metal with a pen, how could you print on it?

People were all the more dumbfounded to hear that the brothers didn't even print from type, but from a perfectly smooth flat stone. The Somers said they simply rolled water over the stone, then ink. And after they pressed a sheet of tin plate to the stone, a pattern appeared underneath. When people asked how this was possible, the brothers may have shruggingly explained that "oil and water don't mix," which didn't help at all. This was lithographic printing which few enough people understand even today.

After they printed a sheet of metal, the Somers lacquered it with a slick finish, and shaped it later into a can. Their process took a matter of days, but the results were exquisite. A Somers' can was something you hadn't the heart to throw away. You kept it as a pin box, tobacco jar, or medicine kit, and there it rested in your home, a permanent advertisement.

Metal lithography has since stepped up into high speed production to a point where the average tooth powder can costs from 2c to 2½c. If you visit a large can-making plant, you may see sheets of metal passing through presses that look like a series of glorified clothes wringers, carried on conveyor lines through ovens that bake them dry. Patterns are no longer printed from flat stone, but indirectly from a photographically treated zinc plate, wraped around a roller.

At the Smithsonian Institute in Washington stands a monumental exhibit of modern lithography—a cookie box topped with a reproduction of Gilbert Stuart's celebrated portrait of George Washington. On the surface of the can you can almost feel every delicate stroke of Stuart's brush. Metal lithographers can turn out jobs like this on production lines. Can-makers know that just about anything printed on paper can be printed as well on metal.

By 1878, drug-makers had begun to see that cans were a tough practical distribution medium. Stevedores could toss a crate of cans into the hold of an ocean transport. Or you could stumble to the medicine cabinet on a morning-after, your eyelids leaded, and tip the bicarbonate of soda can off the shelf. But cans didn't shatter. They also could protect against extremes of atmosphere, dry or damp. And sometimes they were not only a container but a dispenser, as witnessed by Dr. Lyons "patented telescoping measuring tube." You could bend tin plate into a multitude of shapes for a multitude of purposes.

But the Somers brothers, and other metal lithographers, added a glittering new sales point. If cans were practical, they could be furnished as a fancy dress package. Thanks to lithography, cans could go highbrow. You could print exquisite art on the metal it-

self—water colors, oil paintings, color photographs, flamboyant patterns—likenesses of everyone from Lydia Pinkham to the Mona Lisa. And one of the first to realize it was a New Jersey druggist named Gerhard Mennen. Mennen had given up retailing for manufacture at just about the time the Somers brother installed their lithographic presses. In the years to come, Mennen insisted, talcum powders would absorb an ocean of perspiration. Clients at his drug store used to swear by the absorbant powder he compounded for their babies. It sweetened little Buster's temperament, hushed those howls in the night. But before talcum went the mass production way, it needed a protective box and a sprinkler system.

Talcums had retailed in paper packets. Talcum sprinkling was an ordeal to the Missus that you can only guess at. Imagine clamping down little Buster's vigorous torso with one hand, and with the other trying to tip a gentle shower of powder out of an open square box. You could juggle five indian clubs as easily. The ceremony usually ended with a local snow on the bottom of Buster's crib.

The old talcum packet wasn't waterproof. A wash basin splash penetrated the paper. The talcum inside absorbed the water, never to absorb again. And even if the package wasn't splashed, the talcum drank moisture right out of the atmosphere, especially on muggy Summer days. Humidity crept into the talcum, and sogged it. Even when dry, talcum dusted out of the packet, which wasn't sift-proof. But the most mysterious nuisance of all was the way the paper itself stole the essence of talcums and other cosmetics. Science has since explained this phenomenon in a single word—"enfleurage."

In Italy, cosmeticians give tartar of Rose its scent by stacking shelves of grease and shelves of rose petals alternately, one on top of the other, pan-cake fashion. The grease absorbs the scent of the petals. Eventually the petals are odorless, and the grease has become a fragrant ointment. In a similar way, by this "enfleurage" process, the blotter-like paper robbed cosmetics and talcums of their scent.

In 1878, Mennen went into conference with a salesman from the Somer Can Company. The salesman emerged from Mennen's office with the first order for a metal talcum powder can. A few months later, Mennen's baby powder retailed in a can that brought talcum into every home, made its application a lush convenience. This can was as new as the horseless buggy, but its mechanical action dated to the dynasties of ancient China. The Mennen talcum can seemed a streamlined adjustable pepper shaker.

The new container borrowed from the past, and foreshadowed the future. Something like the yet-unborn telephone dial was the flat disc pinned to the roof of the can. This disc was punctured with holes the size of a pin head, edged with metal lugs. You spun the disc by pushing a lug with your finger. After a quarter turn,

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the holes were juxtaposed over another set of holes underneath, and your whole sprinkler system peeped open. This rotary valve tickled the public fancy. In the off position, it protected against a wash bowl splash and muggy atmosphere—indeed, doubly so because you covered the whole sprinkler system afterwards with a snug slip cover.

Mennen knew that his talcum can was here to stay, once people bought it. But they had to buy it first. To win those early sales, he called on a sort of persuasion that was the Somers brothers' stock in trade—lithography. Artists were harnessed to dress up the sifter-topped can. Proofs of the pattern were painted, submitted, rejected, and revised, until Mennen's eye for sales aesthetics was satisfied. His borated talcum, when it appeared on the drug counter, magnetized the glance of every woman who entered the shop. From the walls of the can, a cherubic infant—dimpled, plump, and pink,—grinned, practically gurgled, at the customers. A modern Good Housekeeping cover couldn't have done better. And from the cap on top, a handsome likeness of Mennen himself spoke a proud reminder of the maker's guarantee. Lithography had turned the trick.

Soon, talcum cans became as common as feather dusters. Neighborhood druggists began to buy standard sifter cans for their own talcums. It became the only way to hold their local clients. Those druggists were bucking history's trend towards the brand name product. But can companies did a strong business in standard sifter models, as they did in tooth powder cans, through the early nineteen hundreds.

As the Victorian age faded, talcum cans began to wear swish new labels, became something of a fashion plate. While babies, flowers, and wreaths were popular label garnish, the lithographic talcum lady monopolized the fancy of many can decorators. They introduced her cautiously as a prim Victorian belle in a classic gown, high waist and skirt below the ankles. But as the jazz age encroached on Victorian modesty, the chic talcum lady lowered her waistline, clipped reckless inches off her skirt. Come the carefree twenties, you saw her under a June moon, equipped with a boyish bob and a Princess Eugenie hat. Her waistline had dropped to her hips; her skirt had inched up to her knees, and beyond.

But in the meanwhile, some can designers had other thoughts. They reckoned that the can's metal structure rather than the talcum lady's figure, should captivate the customer. The Metal Package Company's Al Bruns blueprinted cans shaped something like a mandolin or guitar. Others tried can designs they might have borrowed from geometry text books. Just as architects were designing homes with cornices, cupolas, and Corinthian columns, so many manufacturers mapped their merchandising strategy around ornate metal cans.

Thus the fancy dress style of talcum can flourished in the teens and twenties. But already, advanced can design began to pace an inevitable trend towards ef-

ficient streamline. Lithography furnished all the eye wash you needed. The fancy shaped cans had demanded expensive manufacturing equipment. They were slower to pack. The fancy dress can, like the talcum lady, retired unmourned from public life.

Can companies today offer their clients a variety of standard base sizes in rounds, oblongs, and ovals. Machines can turn out these sizes at speeds up to 50,000 per day. Standardized design has lowered the cost of a talcum can far below the prices of the good old days. Each of the standard styles boasts specific virtues. A round can is the cheapest to make, the hardest to tip over. The flat oval and oblong boast good merchandising features.

Since the original disc-topped talcum can, consumers have thumbed sifter tops as various as automobile radiator caps. The perforated flat disc has been humped into a knob with a knurled edge that you spin like a radio dial to open the sprinkler system. Can makers have enhanced this knob with a neat variation for specialized products. You dial right for a sprinkler system, dial left for a large pouring hole.

Some manufacturers prefer a sifter top that you slide back and forth, rather than rotate, to open and close. A spring-closed sifter of this type once came to the aid of zinc stearate. Little Buster wouldn't listen when mother said that zinc stearate was better outside him than in. He spilled it on the floor, mopped it with his tongue. Can manufacturers cancelled the danger with a broad sifter top held shut by a strong spring. Buster's mischievous little hands couldn't open it.

Inventors have dreamed up a multitude of other sifters that peep open and shut. The "tip top", a variation of the tooth powder dispenser, looks like a medieval helmet, opens and closes when you see-saw the visor. The "click tight" snaps open and shut on a horizontal slide. The "Glider" is a new streamline of the sliding species. Some can-makers can produce a powder can tkat puffs deodorants and insecticides like a pair of bellows. When you press the pliable sides of the can, they snap concave. The sudden air pressure inside blows a fine mist of powder out a nozzle at the end of the can. But simplicity is the keynote to most modern talcum dispensers. One of the most popular is the simplest of them all—a perforated dome which neither rotates nor slides. You close it with a separate cap.

Fifty-nine years after Gerhard Mennen's venture, the sifter can appears today to be king pin among talcum containers. In 1943, the Can Manufacturers Institute measured its popularity by quizzing a cross-section of American families. Seventy-nine per cent of them voted the talcum can their favorite. At that time, metal talcum cans were a vanishing American. "Victory" packages were pinch-hitting. You would have thought that the talcum can's popularity would have dropped—out of sight, out of mind. But absence, apparently, made the heart grow fonder. The Institute measured family opinion each succeeding year. In 1944, the talcum can's popularity slumped to 77 per

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cent. But in 1945, the vote of confidence soared to 82 per cent, and stayed there in 1946.

What psychology lies behind these cold statistics An earlier survey by the Institute had diagnosed the voter's view point. In 1941, they conducted a "Study of Housewives Attitudes towards Drug and Cosmetics Containers." Five hundred housewives were asked, "Which type of container is safest where there are small children in the home?" The reason why steel-and-tin cans polled a high majority on this particular vote is apparent.

The five hundred women were also quizzed for the type of container they considered the most dangerous in a wet slippery bathroom. This time the metal can took last place, a vote of confidence by reverse. The woman voiced their reasons: cans were "unbreakable," "waterproof," "convenient to use," "compact and light," "not easily tipped over," "clearly labelled." While these questions and answers covered the general field of drug and cosmetics containers, they refer to many of the talcum can's specific domestic advantages. And those advantages have brought new products into the sifter can.

Antiseptic and surgical powders have found a home for war and peace in talcum-style cans. Here the sifter top may have found its most notable aptitude—for distributing powder evenly and quickly over a wound. And during World War No. 2, the talcum can battled athletes foot, a GI menace. Manufacturers filling government orders knew that their package, like an infantry recruit, had to be tough. They ordered carloads of sifter cans, tinted Navy blue and olive drab. Canned foot powder was shipped to a potential market of 130,000,000 chafing, twitching, GI toes.

The billions of cans that protect and dispense talcums and tooth powders clearly illustrate the sort of inter-industry production that Americans have worked out to a tee. During the war, Yankee manufacturers astonished the world with their knack for efficiency, not only within their plants but *between* them. A jeep was never one plant's product. Assembly lines didn't "make" them. They simply fitted together a melange of ball bearings, brakes, bodies, piston rings, starters, windshield wipers, and so forth—all of them made elsewhere at scattered plants that each contributed their specialized techniques to a single idea.

Canned talcum and tooth powder have been a simpler manifestation of the same industrial teamwork. Manufacturer X made a tin can specifically for the powder of Manufacturer Y. The tin can and the powder had a mere fractional value by themselves. But together they brought a luxurious convenience to America's millions, month-old babies and grandparents alike. And this same sort of alliance between Manufacturer X and Manufacturer Y produced canned blood plasma, the kind they dropped from airplanes.

This is the first of a series of articles on the development of metal cans for drugs and cosmetics. The second will appear in the next issue.

Hand Creams and Lotions

(Continued from page 172)

izer in conjunction with soap or other emulsifiers. Glyceryl monostearate has a marked surface tension reducing effect on it, and is employed because of this property. Stable emulsions may be formulated without the use of gums by using this substance in judicious amounts. It is also possible by its use to incorporate larger amounts of substances, such as mineral oil, than would be otherwise possible. In some of the newer preparations on the market, this fact is taken advantage of in order to make possible a film with greater water repellent properties than would otherwise be possible. One such preparation contains about 15 per cent of mineral oil, and seems to have good functional properties as a water repellent hand protective agency.

The amount of glyceryl monostearate that may be used would vary with the other ingredients used. It may safely be said that the higher the percentage of substances to be emulsified, the higher the amount of glyceryl monostearate should be used. Consideration should be made of substances such as stearic acid which themselves have surface reducing properties. It would not be necessary, therefore, to use as much glyceryl monostearate in conjunction with stearic acid, as would be necessary in conjunction with mineral oil. The introduction of mineral oil and esters, such as the triglycerides into the glyceryl monostearate emulsions reduce the viscosity markedly while stearic acid increases the viscosity. Amounts of the glyceryl monostearate that are used therefore range from 1 per cent to 5 per cent, depending on the lotion.

Of increasing interest in lotion formulation are the mannitan esters which have recently come into use. There are a large variety of these available both as straight esters and esters in whose molecules have been introduced an hydrophyllic polyglycol grouping to increase the size of the hydrophyllic position of the molecule. In addition, there are also available polyglyceryl ester whose functional properties are close to the mannitan esters.

Hand creams provide a much broader scope to the formulator, since the stability problem is not as great a factor to be considered in its formulation. This is due to the relatively non-mobile state of the cream emulsion. In such a system there would be a lesser tendency for the colloid particles to coalesce because their movement is hampered mechanically. The old basic hand cream is the stearic acid, soap vanishing cream, which consists of essentially about 15 per cent of stearic acid, 5 per cent of potassium stearate and 5 per cent to 10 per cent of glycerin. A cream of this type still has a large group of adherents and seems to be retaining its popularity. Variations, in order to produce special effects, may be made by the introduction of mineral oil, lanolin and other substances. This, however, has to be done judiciously to avoid a "rolling" of the dried film due to the presence of too great an amount of an immiscible substance, such as a hydro-

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carbon. In addition to the addition of the materials spoken of above for individual effects, incorporation of soaps, other than potassium soaps, are being used to either harden as with sodium soaps, or to soften as with triethanolamine soaps, the consistency of the cream. Ammonium soaps are also used to import special effects. Ammonium soaps decompose on standing, particularly if the film in which they are incorporated is allowed to dry. The use of ammonia, therefore, becomes a method of removing the emulsifying agent after its purpose has been served and rendering the film more resistant to water than it would otherwise be, since eventually the film will contain no soap or other emulsifying agent.

Of more recent origin is the glyceryl monostearate hand cream where glyceryl monostearate is used to give additional effects. Glyceryl monostearate has a marked stiffening effect on the cream, as compared to stearic acid. Its greater surface tension reducing properties as against stearic acid would enable the formulator to make a cream containing considerably greater amounts of the aqueous phase, than would otherwise be possible. By its use also, if the manufacturer so desires, he may make a hand cream without the characteristic "pearliness" associated with the vanishing and hand creams. An addition of a small amount of glyceryl monostearate to a hand cream would also make it possible to lower the percentage of stearic acid used in order to produce the same consistency. By its use also it becomes possible to incorporate larger quantities of other agents such as lanolin and hydrocarbons, without the appearance of any undue amount of "rolling."

Many of the hand creams now available have Titanium oxide incorporated in them as a whitening agent. The amount used is small, usually less than 1 per cent, and may be incorporated by grinding beforehand with a portion of the glycerol. Titanium oxide is so highly opaque a pigment that a small amount of it does the desired job.

The purely protective hand creams have included in them substances which are actual mechanical barriers to water. One such cream, which has proven to be highly successful, contains a large quantity of zinc stearate; one of the best water repellent substances we know of. In addition to its water repellent properties, zinc stearate would also promote a smoother feeling film—another feature which is highly desirable. The addition of a high percentage of zinc stearate or other metallic soaps to the hand cream would naturally entail a change in the formulating of the cream. The film would ordinarily become too hard and too brittle for good usage. This tendency is therefore counteracted by the addition of larger percentages of glycerol that the film may become more highly plasticized.

The types of creams and lotions described above cover most of the different types now being marketed. With the amount of emulsifiers and new materials being introduced almost daily, it is to be expected that new types will appear in the not too distant future. There

has, for example, been a good deal of talk about acid hand creams in which soapless detergents may be used as emulsifiers, as is the case with anti-perspirant creams, but the general descriptions incorporated in this paper will not be greatly affected by their use. Under any circumstances the consumer expects a hand cream or lotion to make her hands feel smoother and softer and to afford some measure of protection against chapping.

Bois de Rose

(Continued from page 177)

obtained to cover the costs and still return the distillers a normal profit, then the distillers stand to show a loss for their operations. Naturally it is possible to hold the oil until the price rises to the proper point, but then operations on the part of the distillers are curtailed to such an extent that they might find themselves in a position of not being able to conduct their businesses.

The city of Manaos is the main point where the bois de rose is distilled in Brazil. While some of the distillers are located in Manaos, others are located as much as 500 miles from the city.

The Brazilian export tax on bois de rose reaches as high as 40 Cruzeiros per kilo, which is equivalent to one dollar a pound. The contract price of rosewood within the last ten years has increased from a former price of 30 Cruzeiros per ton to 500 Cruzeiros per ton delivered in a place where the barges could enter to ship the logs, and then to 750 Cruzeiros per ton for wood delivered to the distilleries. Wages for the rural workers increased during the same period from 25 Cruzerios to 200 Cruzerios per day. Transport expenses of rosewood increased from 40 to 250 Cruzerios per ton, that is an increase of 625 per cent, and the cost of wood fuel advanced about the same proportion.

In the early thirties, when economic conditions, especially in this country, were very bad, a consortium of the rosewood distillers in Brazil under the leadership of Socrates Bomfim was formed at the request of the Brazilian Government. The consortium continued in existence until 1944 when production of bois de rose was abandoned in Brazil as all available labor was turned over to the production of rubber for the war effort of the United States and her Allies.

However it appears that this consortium will come into existance again due to the chaotic conditions in the producing area and the world markets generally now that distillation of the oil has been resumed. As a matter of fact an agreement between the Brazilian distillers of bois de rose was signed March 31st of this year. Of the 47 distillers in Brazil, 45 have signed the agreement, and it is expected that the remaining two will soon come into the agreement. Under the present agreement, offerings of oils are made only of the stocks actually available. There are to be no offers of future production. Also any particular lot of oil is offered only through one broker, not through several, since the latter method creates the impression that more is being offered than is really available. These methods of

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Most interesting talk these days concerns a Third Party. To this observer a Third Party on a national basis makes as much sense as giving a third wife to a eunuch.

•

Biggest beneficiaries of a Third party would be printers and manufacturers of campaign buttons. The nation as a whole would benefit only to the extent of learning Henry Wallace's official status as a Democrat.

•

As members of the same party, Wallace and the President can't see eye to eye without spitting. The only thing they appear to have in common is a history as ex-Vice-Presidents.

•

Ironically, a stronger Third Party could be made up of Americans who dislike them both. And we're even exempting Republicans.

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While we're on the subject of Republicans, their most likely candidate for the Presidency seems to be Governor Thomas Dewey. Tom's chief claims to fame: He balanced New York's budgets; straddled the nation's issues and never vacillated where he could equivocate.

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Dewey has less to say than any Republican since Coolidge. And he makes a national tour to say it.

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Senator Taft appears to have eliminated himself as a candidate through co-authorship of the Taft-Hartley Act. He is now as popular in Labor circles as Ernest Bevin in Tel Aviv.

•

Repeatedly irked by both outfits, we can understand the temptation to form a Third Party. But in practice it figures to be as effective as scissors on a pair of pants when a needle and thread are needed.

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Our own industry, of course, will continue to take the lofty view of things political: "Comes election time, it's the same old odors with a new packaging job."

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marketing the oil are expected to result in a firmer price situation being created, and it is anticipated that these methods will remove from the market appearances of weakness and conflicting aims in the supply picture.

While the distillers will work under this agreement as it now stands, many of them are confident that a consortium can again be brought into being. Under a consortium, the oil of all the distillers would be offered only through one source in Brazil. This would eliminate all competition between the many distillers of the oil and make for a firm price properly predicated on costs and general market conditions in accordance with supply and demand.

It is estimated that Brazilian bois de rose output for 1947 will not be greater than 100 to 110 tons at best, and no more oil will be available until the end of May or the beginning of June 1948, when the first lots of the 1948 distillation will arrive in this country. Europe bought more than 61 tons in 1946, and this country, from figures supplied by the U. S. Bureau of Census, imported about 225 tons of oil in 1946. Since distillers see no reason to believe that the European demand for bois de rose will be less in 1947 than in 1946, then Europe would take more than half of this years distillation, and the American share of this output will not be greater than 40 to 50 tons. If these figures are accurate, then the bois de rose supply will be apt to be short before the end of the next twelve month period.

The Anticoagulants

(Continued from page 181)

The usual procedure, when a quick effect is needed, is to start heparin and Dicumarol therapy at the same time. The heparin will produce an immediate effect on blood coagulation but not on prothrombia time. Heparin administration may be continued from one to three days, or until a satisfactory effect from Dicumarol is obtained, as indicated by prothrombin values. Once Dicumarol has taken hold, heparin administration may be stopped.

There are certain contraindications to the use of the anticoagulant drugs. According to Allen,[5] these agents should be used cautiously or not at all in the presence of vitamin C or K deficiency, profound liver disease with prothrombin deficiency, renal insufficiency, blood disorders with impaired coagulation, recent operation on the brain or spinal cord, ulcerative lesions, and open wounds.

The anticoagulants have proved their value for the prophylaxis and treatment of intravascular clotting or venous thrombosis and for the prevention of dangerous or fatal consequences, like pulmonary embolism. The well established indications for these drugs include nonfatal pulmonary embolism (to prevent further embolism), thrombophlebitis, phlebothrombosis, sudden arterial occlusion, and trauma to blood vessels. Widely employed prophylactically against postoperative venous thrombosis, the anticoagulants may also have possible value in heart conditions and other diseases.

It has come to be realized that venous thrombosis is far more common than was generally supposed. Formerly it was thought that intravascular clotting developed only in patients who had undergone surgery, but newer studies have shown that the condition occurs almost as frequently in patients receiving medical treatment.[25] As summarized by Hobler,[26] the predisposing factors involved in the production of intravenous clotting are: cardiovascular disease, advancing age, sex (more common in women), seasonal variation (more frequent in winter and in cold climates), constitutional diathesis, obesity, debility, varicosities, excessive smoking, hematological conditions and centers of infection. The actual precipitating conditions are tissue injury or trauma and circulatory retardation.

Data gathered by Jones[27] indicates that thrombosis may be expected to occur in from 27 to 60 per cent of hospital patients. It is quite well recognized that patients ill enough to remain in bed are prone to develop thrombosis in the leg veins under certain conditions.[28] Today, thrombosis in the veins of the legs is believed responsible for about 95 per cent of cases of pulmonary embolism.[3, 29] Hence the problem of preventing pulmonary embolism one of early recognition of plantar or calf venous thromboses.[30]

The task of diagnosis and treatment was considerably aided when Ochsner and De Bakay[31] divided intravascular clotting into two main types: thrombophlebitis and phlebothrombosis. Thrombophlebitis is a well known and easily recognized condition. The clot is strongly adherent and is said[30] to rarely result in pulmonary embolism. However, analysis of embolism from thrombophlebitis indicates that about 10 per cent of emboli result from this condition.[18] There are various methods for treating this disorder. During recent years, the anticoagulant drugs have found important applications in the treatment of thrombophlebitis and have proved to be valuable adjuncts toward the achievement of better results.[15, 16, 22, 32]

Phlebothrombosis, sometimes known as bland or silent vascular thrombosis, is much harder to recognize, but improved methods of diagnosis have been developed. It is a far more dangerous condition because the thrombus can easily become detached and enter the blood stream. It is such an occurrence which frequently produces fatal pulmonary embolism when a patient first gets out of bed after an operation. At the early stages there may be little or no signs of involvement of the extremities. However, when a patient's chart shows a rise in pulse rate, temperature and respiration, it is strongly indicative of phlebothrombosis with pulmonary embolism. In many cases a sudden, sharp pain in the chest as a result of pulmonary embolism is the first indication of phlebothrombosis. If the emboli are small, they may cause only pleuritis or substernal pain, faintness, coughing or bloody sputum. If the clots are large, they may cause sudden death.[25]

Once a diagnosis of phlebothrombosis has been made, two courses are open—anticoagulant therapy or surgical ligation of the veins. Both methods have yielded

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excellent results.[33] At present according to a leading authority,[34] the trend of medical opinion seems to favor the anticoagulants. Indeed many reports[5, 7, 15, 16, 32] attest the fact that the anticoagulants provide a practical and effective method for the treatment of the thromboembolic disease. As noted by Silbert,[35] the great advantage of the anticoagulant method is that thrombosis and phlebitis are controlled in all parts of the body and not just in the legs. Additional operations are avoided. It should also be noted that when surgical ligation is done, heparin and Dicumarol are valuable adjuncts.[3]

The anticoagulants have assumed major importance as means of preventing postoperative complications from venous thrombosis and pulmonary embolism. When used for this purpose, these drugs have undoubtedly helped to avoid much suffering, reduced convalescence, and saved many lives.[22, 24, 27, 36, 37] While not indicated in all surgical procedures, the anticoagulants are valuable in those cases which have a history of previous thrombosis, or in which there has been extensive resection of tissue, severe operative trauma or infection.[13]

Illustrative of the value of the anticoagulants are the often-cited results obtained by Barker and his associates.[38] They reported a series of 1,000 surgical cases treated with Dicumarol. These cases were specially selected because they had already had thrombosis or embolism, or were about to undergo operations in which this complication was prone to develop. Included were 180 patients who had had a non-fatal pulmonary embolism. In the entire series of 1,000 patients only one fatal pulmonary embolism occurred. "Such figures," said Silbert,[35] "cannot fail to be impressive."

More recently, another group of investigators[39] reported that Dicumarol, given in small doses postoperatively, will reduce the incidence of thrombosis to at least 25 per cent of that seen in patients not given anticoagulant treatment. Contrary to previous views, there is evidence that the anticoagulants, heparin and Dicumarol, may be useful in the field of obstetrics. Properly employed, the agents can help to prevent many cases of postpartum thrombophlebitis and phlebothrombosis.[40-41]

The work of Lange and his associates[42-43] indicates that the timely use of heparin may prevent gangrene following frostbite and related conditions. They felt that if, during the critical period of stasis and red cell clumping within the blood vessels, thrombi formation could be prevented, gangrene would not occur. Their successful experiments upon both animals and humans has borne out this belief. Of related interest is a case[44] in which heparin and papaverine were used to prevent gangrene resulting from foot injury. Heparin was used to increase the fluidity of the blood. As a result of combined treatment, amputation was avoided and the foot functioned satisfactorily.

Considerable interest has been focused on the use of anticoagulants with penicillin in the treatment of subacute bacterial endocarditis. Many workers[1, 45-48] have

obtained good results with the combination. Others,[49, 50, 51] however, have obtained similar results with penicillin alone. Some investigators feel that the extra cost of heparin is not justified[52] or that the use of anticoagulants introduces an unnecessary hazard.[53, 54] Allen[5] has stated flatly that "Anticoagulants seem to have no value in the treatment of subacute bacterial endocarditis."

In the meantime, the possible value of anticoagulant therapy in other heart conditions is being studied by many investigations. Quite a number of indicative and promising reports[55-58] have appeared on the effective use of Dicumarol in cases of acute coronary thrombosis and related conditions. Wright,[59] for example, found that Dicumarol does not aggravate or complicate a case of coronary thrombosis. He feels that the anticoagulant should be used whenever there is a tendency of emboli to occur or of the thrombus to propagate or repeat. The drug decreases this tendency and the percentage of deaths is decreased when Dicumarol is used.

Interest is also being aroused by the potentialities of anticoagulants on other conditions. Young[60] has employed Dicumarol in treating cerebrovascular diseases. Administered to patients with cerebral thrombosis, he found more rapid improvement after given this drug than with any other method of treatment. He has also employed Dicumarol in cerebral arteriosclerosis associated with sensory disturbances and psychotic symptoms and observed clearing of the mental symptoms in some of the cases. Putnam and his associates[61] have found Dicumarol therapy beneficial in patients with multiple sclerosis.

Experimental studies[62] point to the possibility that revival of asphixiated people with circulatory collapse may be favored by injecting heparin as part of the resuscitative procedure. By preventing clotting, heparin serves to keep the blood fluid so that it can again move through the circulatory system.

Since neither heparin or Dicumarol meet the requirements for the ideal anticoagulant,[5] research is going on to provide better drugs of this type. Further studies with the anticoagulants will unquestionably broaden their therapeutic and life-saving applications.

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Developing Overseas Trade

(Continued from page 175)

countries. On the contrary, business for this company continued on a more even keel, in season and out of season, and in good times and bad, than did the businesses of manufacturers who did not have world-wide distribution.

Naturally there is always a certain risk involved in investing in foreign countries due to political conditions in those countries. But the matter of hemisphere solidarity seems to be a long range policy of this country and of practically all the Latin American countries. Certainly the risk of investing in Latin American countries is not nearly so great as the risk of investing in countries in the other hemisphere. This country and the countries south of us must hang together and this means that trade relations must be on friendly terms. The matter of taking in local capital in some of the countries being developed, further cements the friendly relations and is doubtless a wise move in some countries.

Another reason why expansion in Latin America is to be preferred to expansion in the other hemisphere is that the countries to the south of us do not seem to have the terrific financial headaches which the Europeans and the Asiatics have. Also there are in the Latin American countries raw materials which we can import to make this foreign trade the two-way street which it must be to exist for any length of time. Americans have at last come to the realization that to export, we must import. Otherwise, the foreign countries have no money with which to pay for the goods which they want to import from us and which we are anxious to export to them.

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(*Continued from page 229*)

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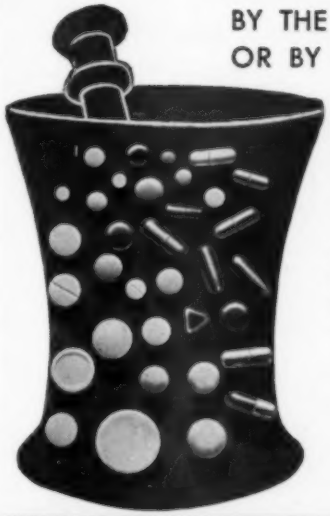

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Ser. May 23, 1946 D. U. May 1, 1946
PERIPHENYL—VI—T—505,024
Western Exterminating Co., Newark, N. J.
Ser. July 2, 1946 D. U. Jan. 10, 1946
PET-O-SOL (And des.)—VI—T—496,030
E. John Kennedy, New York, N. Y.
Ser. Feb. 5, 1946 D. U. Oct. 20, 1945
PRINAL—VI—BC—502,154
Jack Price, Los Angeles, Calif.
Ser. May 15, 1946 D. U. May 3, 1946

RES-I-SPRAY—VI—T—496,031
E. John Kennedy, New York, N. Y.
Ser. Feb. 5, 1946 D. U. Sept. 10, 1945
RETOUR—VI—B—503,883
Jean d'Hennery, Inc., New York, N. Y.
Ser. June 14, 1946 D. U. May 8, 1946
REVIVOR—VI—I—506,307
Gloria Vanderbilt Inc., New York, N. Y.
Ser. July 26, 1946 D. U. July 23, 1946
RIVAGES—VI—BCK—499,164
Soc. Anonyme de Diffusion Internat. de Parfum., Paris, France
Ser. Mar. 28, 1946 D. U. Jan. 20, 1945

SAXON KNIGHT—VI—ABHI—505,240
Royal Phar. Corp., Duquesne, Brooklyn, N. Y.
Ser. July 9, 1946 D. U. June 1, 1946
SAXON SHIELD—VI—ABHI—505,241
Royal Phar. Corp., Duquesne, Brooklyn, N. Y.
Ser. July 8, 1946 D. U. June 1, 1946
SELECT—VI—H—502,875
Anita C. Banks, New York, N. Y.
Ser. May 28, 1946 D. U. Feb. 1, 1946
SHANTUNG—VI—ABCDEHI—505,549
Assoc. Prod. Inc., Chicago, Ill.
Ser. July 13, 1946 D. U. June 21, 1946
SOMEBODY LOVES ME—VI—B—503,200
William S. Hieber (Henri Monet), Atlanta, Ga.
Ser. June 3, 1946 D. U. Oct. 1932
SPIFFY IN A JIFFY—IV—A—496,178
Alice L. Fernandez (Victory Enterprises) New York, N. Y.
Ser. Feb. 7, 1946 D. U. Nov. 10, 1945
SNOWMINT—VI—K—484,238
Joseph A. Buttny (Jab Co.,) Chicago, Ill.
Ser. June 7, 1945 D. U. June 1925
STANDOUT (And des.)—VI—I—493,405
Walter S. Sosin (The Walstan Co.,) New York, N. Y.
Ser. Dec. 15, 1945 D. U. Oct. 1, 1945
STARCO—VI—DH—501,781
Star Chem. Co., San Antonio, Tex.
Ser. May 9, 1946 D. U. 1931
SWISS—VI—AM—500,649
Leon Diamond (Swiss Lab.) Cleveland, Ohio
Ser. Apr. 22, 1946 D. U. Jan. 10, 1940
SWISS—VI—AM—500,648
Leon Diamond (Swiss Lab.,) Cleveland, Ohio
Ser. Apr. 22, 1946 D. U. Jan. 10, 1940
SYLGEN—VI—MS—504,985
Eugene Levinstein, (Glenbrook Lab.) Glendale, N. Y.
Ser. July 2, 1946 D. U. June 24, 1946

T. L. V. ALL OVER THE WORLD—(And des.)—VI—H—466,815
T. L. Vick, Norman, Okla.
Ser. Jan. 22, 1944 D. U. Sept. 1, 1943
TANZ—VI—S—498,335
Sperti, Inc., Cincinnati, Ohio
Ser. Feb. 27, 1946 D. U. Feb. 7, 1946
TAP-SUDS—IV—M—482,541
Carl H. Van Sinden (Kem-Stone Prod. Co.) Chicago, Ill.
Ser. Apr. 21, 1945 D. U. Aug. 1, 1944
TARASQUE—VI—BCK—499,160
Soc. Anonyme de Diffusion Internat. de Parfum., Paris, France
Ser. Mar. 28, 1946 D. U. Oct. 1, 1945
TEEN AGE—VI—C—470,901
Dermetics, Inc., Seattle, Wash.
Ser. June 5, 1944 D. U. Dec. 29, 1943
TESSA LEE—VI—C—498,628
Leona B. Harvell (Tessa Lee Cosmetics) Birmingham, Ala.
Ser. Mar. 20, 1946 D. U. Nov. 1, 1945
Reg. 429,502 Apr. 29, 1947

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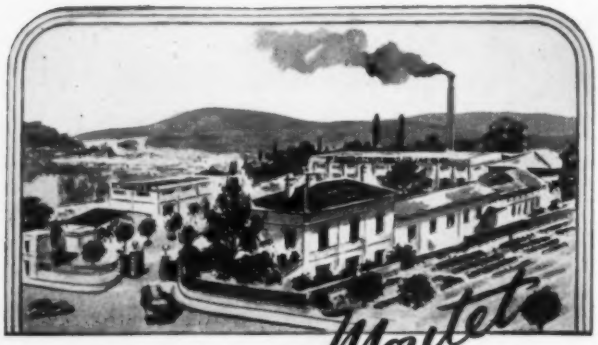

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Assoc. Prod. Inc., Chicago, Ill.
Ser. July 13, 1946 D. U. June 12, 1946
TECHNI-CURL—VI—G—505,396
Helene Curtis Indust. Inc., Chicago, Ill.
Ser. July 11, 1946 D. U. June 12, 1946
TONE-OIL—VI—G—511,698
Frank diOrio (Pina Ton-Ol Waving Process Co.) Newark, N. J.
Ser. Oct. 29, 1946 D. U. Sept. 1, 1944
TOUTOUNNE—VI—B—503,884
Jean d'Hennery, Inc., New York, N. Y.
Ser. June 14, 1946 D. U. May 8, 1946
TRICLAINE—VI—T—506,791
Woolfolk Chem. Works, Ltd., Fort Valley, Ga.
Ser. Aug. 2, 1946 D. U. Sept. 1945
TRIOMPHE D'AMOUR—VI—B—503,885
Jean d'Hennery, Inc., New York, N. Y.
Ser. June 14, 1946 D. U. May 8, 1946
TRULIP—VI—C—503,230
M. T. Strommen, Arcadia, Calif.
Ser. June 3, 1946 D. U. Oct. 1, 1939
TUTONE—VI—H—505,093
Princess Pat Ltd., Chicago, Ill.
Ser. July 5, 1946 D. U. June 1920

VOISINE—VI—BCK—499,165
Soc. Anonyme de Diffusion Internat. de Parfum., Paris, France
Ser. Mar. 28, 1946 D. U. Oct. 1, 1945
VOUS SEULE—VI—BC—505,014
Edmond Rosens, Paris, France
Ser. July 2, 1946 D. U. May 31, 1939

WATERFALL—VI—B—502,428
Sara Cooley Cosmetics, Los Angeles, Calif.
Ser. May 20, 1946 D. U. May 7, 1946
WILDWOOD—VI—ABC—495,729
Donna Lo Lab., Inc., St. Louis, Mo.
Ser. Jan. 31, 1946 D. U. Aug. 11, 1941
Reg. 429,488 Apr. 29, 1947

X-TERM-A—VI—T—503,971
William Thomas Carroll (The X-Term-A Co.) Gorham, Maine
Ser. June 15, 1946 D. U. Jan. 1, 1935

YOUTHCRAFT—VI—H—501,679
Murphy Lab. Inc., Upper Darby, Pa.
Ser. May 8, 1946 D. U. April 1944

ZIRCON—VI—S—502,467
Sills Research Lab., Los Angeles, Calif.
Ser. May 20, 1946 D. U. May 1, 1946

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AHOY—VI—I—509,563
Colgate-Palmolive-Peet Co., Jersey City, N. J.
Ser. Sept. 23, 1946 D. U. Sept. 4, 1946
AID'S-BRUSHLESS—VI—I—501,715
Benjamin Lee Cohen (Aid Labs.), Camden, N. J.
Ser. May 9, 1946 D. U. June 10, 1934
Reg. 430,688 June 17, 1947
ALARME—VI—B—508,275
D'Orsay Sales Co., New York, N. Y.
Ser. Aug. 30, 1946 D. U. Aug. 27, 1946
ANOCHE—VI—B—491,024
Para Ti Corporation, New York, N. Y.
Ser. Nov. 3, 1945 D. U. Oct. 22, 1945
AQUAGEN—IV—A—506,886
Miami Prod. and Chem. Co., Dayton, Ohio
Ser. Aug. 5, 1946 D. U. May 1, 1946
AROM-A-HOL (with des.)—VI—C—501,452
Morris Herman (Herman Prod. Co.), Brooklyn, N. Y.
Ser. May 4, 1946 D. U. December 1944
ATOM-O-DENT—VI—K—503,165
Erl Sales Dist., Los Angeles, Calif.
Ser. June 19, 1946 D. U. Feb. 10, 1946

BAMBY—IV—A—498,832
J. Genovese (Bamby Prod.), Long Island City, N. Y.
Ser. Mar. 23, 1946 D. U. Dec. 10, 1945
BANDBOX—VI—A—509,128
Ashe Labs. Ltd., London, England
Ser. Sept. 16, 1946 D. U. August, 1945

BELLE DE NUIT—VI—B—504,688
Parfum. Fragonard G. Fuchs & Cie., Paris, Fr.
Ser. June 27, 1946 D. U. 1933
BERCO (with des.)—VI—T—503,495
J. Berlage Co., Inc., New York, N. Y.
Ser. June 8, 1946 D. U. December 1945
BIB 'N TUCKER—VI—C—502,273
Lillian Cooper Cos., Ltd., New City, N. Y.
Ser. May 17, 1946 D. U. May 1, 1946
BLACK SUNLIGHT—VI—BC—493,199
Lentheric, Inc., New York, N. Y.
Ser. Dec. 13, 1945 D. U. Dec. 4, 1945
BLUE RIDGE (with des.)—VI—AI—494,068
Hipsh, Inc., Kansas City, Mo.
Ser. Dec. 29, 1945 D. U. Dec. 10, 1945
Reg. 430,455 June 10, 1947

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"Pharmaceutical Recipe Book"
"Drug & Cosmetic Review," 1946-47, page 117

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